



# Changes & Updates

after

## Program Publication

(Please visit the PAC'11 Website, [www.bnl.gov/pac11](http://www.bnl.gov/pac11), and PAC'11 Mobile Edition, [www.bnl.gov/pac11/m](http://www.bnl.gov/pac11/m), for the most up to date information)

 Changes

### Sponsors (Additions to the list, Located on Page 7)

- Niowave, Inc.
- Agilent Technologies
- GMW Associates
- Stangenes Industries, Inc.

### Satellite Meetings (Located on Page 15 & 16):

<b>Sunday, March 27<sup>th</sup> -</b> APS DPB E. Council Meeting <i>Brecht Room, 4<sup>th</sup> Floor</i> 17:30-24:00	<b>Wednesday, March 30<sup>th</sup> -</b> National Instruments <i>Brecht Room, 4<sup>th</sup> Floor</i> 08:30-12:00	Short X-ray Pulse Collaboration <i>Columbia Room, 7<sup>th</sup> Floor</i> 17:30-19:30
<b>Monday, March 28<sup>th</sup> -</b> APS DPB Business Meeting <i>Plymouth &amp; Uris Rooms, 6<sup>th</sup> Floor</i> 12:00-14:00	Magnet Meeting II <i>Uris Room, 6<sup>th</sup> Floor</i> 08:30-12:00	Women in Engineering Reception <i>Astor Room, 7<sup>th</sup> Floor</i> 17:30-19:30
<b>Tuesday, March 29<sup>th</sup> -</b> BIW12 Prog. Committee Meeting <i>Plymouth Room, 6<sup>th</sup> Floor</i> 11:00-14:00	ILUT Forum <i>Brecht Room, 4<sup>th</sup> Floor</i> 12:30-14:00	<b>Thursday, March 31<sup>st</sup> -</b> SLAC Dielectric Structures Meeting <i>Brecht Room, 4<sup>th</sup> Floor</i> 17:00-19:00
CeC Collaboration Meeting <i>Majestic Room, 6<sup>th</sup> Floor</i> 13:30-15:30	APS Journal Editor Reception <i>Plymouth &amp; Uris Rooms, 6<sup>th</sup> Floor</i> 15:00-17:00	
Magnet Meeting I <i>Uris Room, 6<sup>th</sup> Floor</i> 13:00-18:00	Accelerator Physics Education <i>Brecht Room, 4<sup>th</sup> Floor</i> 17:00-19:00	
ICFA Panel Meeting <i>Olmstead Room, 7<sup>th</sup> Floor</i> 18:00-20:00	AAC 2010 OC Meeting <i>Gramercy Room, 7<sup>th</sup> Floor</i> 18:00-20:00	
	NPSS Women in Engineering <i>Cantor &amp; Jolson Complex, 9<sup>th</sup> Floor</i> 17:30-19:30	

### Exhibitors (Added after press, not found in the Exhibitor Profiles):

Dean Technology Inc.

### Internet & Proceedings (Located on Page 17 & 18):

**Internet** - Internet Café is located in the [Shubert Room](#), 6<sup>th</sup> Floor.

**Oral Sessions** - Speaker Preparation room is located in the [Royale Room](#), 6<sup>th</sup> Floor.

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**Companion Programs** (Located on Page 25):

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**Companion Breakfast** –Monday March 28<sup>th</sup>, 9:30-11:00, located in the [Plymouth Room, 6<sup>th</sup> Floor](#).

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**Agenda/ Monday, March 28<sup>th</sup>** (Located on page 33 & in the Synoptic Table):

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North Ballroom:

10:45-11:00 [Comparison of Accelerator Technologies for use in ADSS](#)  
*Speaker: Bill Weng, Brookhaven National Laboratory*

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**Agenda/ Tuesday, March 29<sup>th</sup>** (Located on page 39, 41, 42 & in the Synoptic Table):

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North Ballroom:

10:30-11:00 [Progress Towards a Free-electron Laser Driven by a Laser-plasma Accelerator](#)  
*Speaker: Andreas R. Maier, LMU*

South Ballroom:

10:00-10:30 [Technical Challenges in the LCLS, Commissioning & Upgrades](#)  
*Speaker: Zhirong Huang, SLAC*

10:30-11:00 [Cornell ERL Research and Development](#)  
*Speaker: Christopher Mayes, CLASSE*

14:45-15:00 [A Next Generation Light Source Facility at LBNL](#)  
*Speaker: John Corlett, LBNL*

16:15-16:45 [Demonstration of the Echo-enabled Harmonic Generation Technique](#)  
*Speaker: Dao Xiang, SLAC*

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**Agenda/ Wednesday, March 30<sup>th</sup>** (Located on page 48 & in the Synoptic Table):

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South Ballroom:

16:45-17:00 [High Gradient Normal Conducting Radio Frequency Photoinjector System for Sincrotrone Trieste](#)  
*Speaker: Dr. Luigi Faillace, Radiabeam Technologies, LLC*

<p><b>Women in Engineering Reception</b> <a href="#">Cantor &amp; Jolson Rooms, 9<sup>th</sup> Floor</a> 17:30-19:30</p>
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**Agenda/ Thursday, March 31<sup>st</sup>** (Located on page 49, 51, 52 & in the Synoptic Table):

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South Ballroom:

09:15-09:30 [Enhancement of RF Breakdown Threshold of Accelerator Structures by Magnetic Insulation](#)  
*Speaker: Diktys Stratakis, UCLA*

North Ballroom:

14:00-14:15 [The High-Energy Storage Ring](#)  
*Speaker: Rudolf Maier, FZJ, Jülich*

South Ballroom:

14:45-15:00 [Power Upgrade for CEBAF at Jefferson Laboratory](#)  
*Speaker: Andrew Kimber, Jefferson Laboratory*

15:00-15:15 [Resonance Control in SRF Cavities at FNAL](#)  
*Speaker: Yuriy Pischalnikov, FNAL*

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**Awards** (Addition)

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**APS-DPB Outstanding Doctoral Thesis in Beam Physics Award**

Ian Blumenfeld, Archimedes, Inc (San Francisco, CA)

*"For his research on the physics of plasma wakefield acceleration; in particular, the scaling of the longitudinal electric fields and transformer ratio in the nonlinear "blowout" regime."*

Roderik Bruce, CERN

*"For his research on beam loss mechanisms involving ultra-peripheral nuclear collisions in relativistic heavy-ion colliders that are potentially performance-limiting."*




# Particle Accelerator Conference Guide

New York Marriott Marquis, NY, U.S.A.  
March 28 – April 1, 2011

<http://www.bnl.gov/pac11>

**BROOKHAVEN**  
NATIONAL LABORATORY

 **IEEE**  
NUCLEAR &  
PLASMA SCIENCES  
SOCIETY

 **APS**  
physics  
Division of Physics  
of Beams (APS-DPB)

**MARRIOTT EMERGENCY PHONE NUMBERS:**

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Hotel Phone Number	1 (212) 398-1900
Emergency Hot Line	6666
Emergency # (Inside Hotel)	9-911
Emergency # (Outside Hotel)	911

**HOSPITAL:**

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Roosevelt /St. Luke's 428 West 59th Street Between 9th and 10th Ave	1 (212) 523-4000
St. Clare's - 426 W 52nd St	1 (212) 586-1500

**HOUSE DOCTOR:**

---

Dr. Moulten 200 Central South, Suite 210	1 (212) 765-6322
---	------------------

**WALK-IN CLINICS:**

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NY Walk-in Medical Care 1627 Broadway at 50th drwalkin.com	1 (212) 245-2943 1 (888) 535-6963
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**PHARMACIES:**

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Walgreens 1471 Broadway (NWC of Broadway & 42Nd)	1 (212) 302-0552
Duane Reade 4 Times Square (Near Broadway)	1 (646) 366-8047

# 2011 Particle Accelerator Conference

March 28th – April 1st, 2011

New York, New York

[www.bnl.gov/pac11/](http://www.bnl.gov/pac11/)

The PAC'11 Conference is held at:

New York Marriott Marquis

Organized by  
BNL



## **SPONSORSHIP**

The conference is held under the joint auspices of the Institute of the Electrical & Electronics Engineers through its Nuclear and Plasma Sciences Society and of the American Physical Society through its Division of Physics of Beams.



**Contents Section I**

Welcome .....	iv
Program Overview .....	1
Contacts.....	3
Organizing Committee.....	4
Scientific Program Committee .....	5
Local Organizing Committee.....	6
Sponsors & Student Grants.....	7
Industrial Exhibitors .....	8
Satellite Meetings.....	15
Internet & Proceedings .....	17
Poster Sessions .....	19
Identification of Contributions .....	21
Student Travel Grant Awards.....	22
Social & BNL Tour .....	24
Companion Programs .....	25
Tourism, Services & Banking .....	26
Awards.....	27
Scientific Program Summary .....	33

**Contents Section II**

Scientific Program Contributions .....	56
Note Pages.....	155
Conference Floors.....	158
Synoptic Table	

Visit <http://www.bnl.gov/pac11> for the most up to date information.

PAC'11 Mobile Edition:

Visit <http://www.bnl.gov/pac11/m> on your phone or iPod touch for the PAC'11 mobile edition.

*[From your mobile device browser you can select the bookmark icon and add the PAC'11 mobile edition to your desktop.]*

It is my pleasure to welcome you to the 2011 Particle Accelerator Conference (PAC'11) in New York City from March 28 to April 1, 2011. This conference is the latest in the highly successful series of Particle Accelerator Conferences and also the first regional North American PAC organized to attract accelerator scientists, engineers, students and industrial exhibitors interested in every aspect of the science and technology of particle accelerators.

PAC'11 is hosted by Brookhaven National Laboratory, and jointly sponsored by the IEEE Nuclear & Plasma Sciences Society and the APS Division of Physics of Beams. The Scientific Program Committee has developed a dynamic and stimulating program covering all topics relevant to our community. We are also holding a special student poster session on Sunday, March 27, starting at 6:00 pm.

Following the conference, on Saturday, April 2, you can join a bus tour to Brookhaven National Laboratory, and see for yourself accelerators of the Relativistic Heavy Ion Collider facility, the National Synchrotron Light Sources II, presently under construction, as well as the Accelerator Test Facility and the Energy Recovery Lin.

Our host hotel, the New York Marriott Marquis, is located in the heart of Times Square and the Broadway theater district and offers advanced conference facilities. And attractions such as Central Park, Fifth Avenue, Carnegie Hall, and Radio City Music Hall are all just minutes away.

With diverse neighborhoods and a different experience waiting around every corner, New York City offers up a feeling of energy and excitement that is unmatched and is also host to many of America's iconic landmarks.



I look forward to meeting you during the conference.

Thomas Roser  
*PAC'11 Chair*



## Program Overview

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Welcome to PAC'11 and its cornerstone – the exciting scientific program. Thanks to your wide interests, the scientific program is expansive, covering exciting developments in both traditional and novel areas, in today's accelerator physics and engineering world. The program includes three plenary talks highlighting the role of accelerators in major scientific discoveries along with 147 talks, 49 of which were invited and 98 contributed. As always, the core of our program rests upon the wealth of accomplished research, covered in 1120 posters.

While PAC'11 closely follows the tradition of the PAC series, we instituted some differences. Thus, the oral sessions are built around eight main categories (PAC'09 had fifteen) to assure their continuity. I believe that this arrangement will simplify the logistics of the meetings, making the orchestration of your time at PAC much easier. We also scheduled four daylong poster sessions on different days from the oral presentations in the same main category.



The final innovation of the PAC'11 program is four early-morning hour-long tutorial sessions. I am sure you will enjoy these in-depth presentations by world-renowned experts and consider your early start to the day a very worthwhile choice.

The foremost criterion for selecting presentations for the program was their scientific merit, with less attention to institutional- and regional-balances. 157 members of the Scientific Program Committee (SPC), from 79 institutions worldwide, painstakingly selected an exciting PAC'11 scientific program and carefully considered every one of the 1276 abstracts submitted to PAC'11.

Based on their preference and area of expertise the SPC members split into eight session groups, each led by a session coordinator.

The SPC selected the invited talks in the winter of 2010 and the contributed talks in the fall of 2010.



The SPC decided upon the talks via a two-step process. First they suggested candidates for both invited and contributed (chosen from among all the submitted abstracts) talks. Second, led by the session coordinators, they put together short lists, along with back-up lists, for each session. A month-long process assured in-depth discussions via web-conferences and e-mails.



Eight session coordinators and their deputies (“shadows”) formed the core of a Scientific Program Coordination Committee (SPCC, 20 members), which met in person in March and December 2010, and conferred frequently via web-conferencing. The SPCC decided on the session’s time allocation and the balance of the overall program.

They aimed to correct any serious discrepancies in distribution of the talks, and avoid having the same speakers give multiple talks. Thanks to the SPC’s work and wisdom, this process proved very easy and very few talks were replaced from SPC’s back-up lists. PAC’11 OC approved the lists of the invited and contributed talks.

I want to thank all the members of SPC for selecting what I consider a top-notch program. My special thanks go to members of SPC for their dedicated efforts in coordinating the selection process. I am particularly grateful to Christine Petit-Jean-Genaz for providing and fine-tuning invaluable SPMS tools, and for sharing with us her worldwide experience in all aspects of the PAC conferences.



**Vladimir N Litvinenko**  
*PAC’11 Scientific Program  
Committee Chair*

General inquiries should be directed to the Conference Coordinator:

**Anna Petway***Conference Coordinator*

P.O. Box 5000

Upton, NY 11973-5000 USA

Phone: 631-344-4776

Fax: 631-344-5954

Email: [petway@bnl.gov](mailto:petway@bnl.gov)**Kevin Brown***Co-Editor*Email: [brownk@bnl.gov](mailto:brownk@bnl.gov)**Todd Satogata***Editor*Email: [satogata@gmail.com](mailto:satogata@gmail.com)**Michael Sivertz***LOC Chair*Email: [sivertz@bnl.gov](mailto:sivertz@bnl.gov)**Derek Lowenstein***Student Program Coordinator**Teachers Day Coordinator*Email: [lowenstein@bnl.gov](mailto:lowenstein@bnl.gov)**Susan Pankowski***Treasurer*Email: [pankows@bnl.gov](mailto:pankows@bnl.gov)

## Organizing Committee

---

Thomas Roser (BNL)

*Chair*

Sandra Biedron (ANL)

Joe Bisognano (U. of Wisconsin)

John Cary (U. of Colorado)

Yu-Jiuan Chen (LLNL)

John Erickson (LANL)

Steve Gourlay (LBNL)

Robert Hettel (SLAC)

Georg Hoffstaetter (Cornell)

Andrew Hutton (TJNAF)

Kevin Jones (ORNL)

Chan Joshi (UCLA)

Liu Lin (LNLS, Brazil)

Vladimir Litvinenko (BNL)

Lia Merminga (TRIUMF, Canada)

Paul Schmor (TRIUMF, Canada)

Stan Schriber (MSU)

Vladimer Shiltsev (FNAL)

Bruce Strauss (DOE Office of Science)

Vic Suller (CAMD)

Dave Sutter (U. of Maryland)

Alan Todd (AESYS)

Marion White (ANL)

**Scientific Program Committee**

---

Vladimir Litvinenko

*Chair*

Giorgio Apollinari

William Barletta

Ivan Bazarov

Alex Chao

William Corbett

Viatcheslav Danilov

Rodney Gerig

Chan Joshi

Valeri Lebedev

Shane Koscielniak

Samuel Krinsky

Patric Muggli

Akira Noda

Christine Petit-Jean-Genaz

Matt Poelker

Alan Todd

Rok Ursic

Frank Zimmermann

## Local Organizing Committee

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Michael Sivertz

*Local Organizing Committee Chair*

Thomas Roser

*Chairman*

Vladimir Litvinenko

*Science Program Committee Chair*

Anna Petway

*Conference Coordinator*

Caitlin Scholl

*Conference Guide*

Susan Pankowski

*Treasurer*

Doreen Cantelmo

*Exhibitor Coordinator*

Todd Satogata

*Editor*

Kevin Brown

*Co-Editor & Conference Guide*

Nick Franco

*IT/AV Coordinator*

Frank Naase

*IT/AV Coordinator*

Elaine Lowenstein

*Tours*

Derek Lowenstein

*Student Program Coordinator*

*Teachers Day Coordinator*

Scott Bronson

*Educational Programs*

Kendra Snyder

*Senior Public Affairs Representative*

Mei Bai

*Satellite Meeting Coordinator*

## PAC'11 Sponsors & Student Grants

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We would like to acknowledge and thank the following for their sponsorship and support.



American Physical Society-  
*Division of Physics of Beams*

Apple, Inc.

Brookhaven National Laboratory

Brookhaven Science Associates

Dintel, Inc.

Heinzinger Electrical GmbH

IEEE – Nuclear and Plasma Sciences Society

Mega Industries, LLC

Micro Communications, Inc.

US Department of Energy-Office of Science:

*Basic Energy Science*

*Fusion Energy Science*

*High Energy Physics*

*Nuclear Physics*

## Student Grants

The student travel program is made possible by the funding support from PAC'11 and generous contributions from the following institutions:

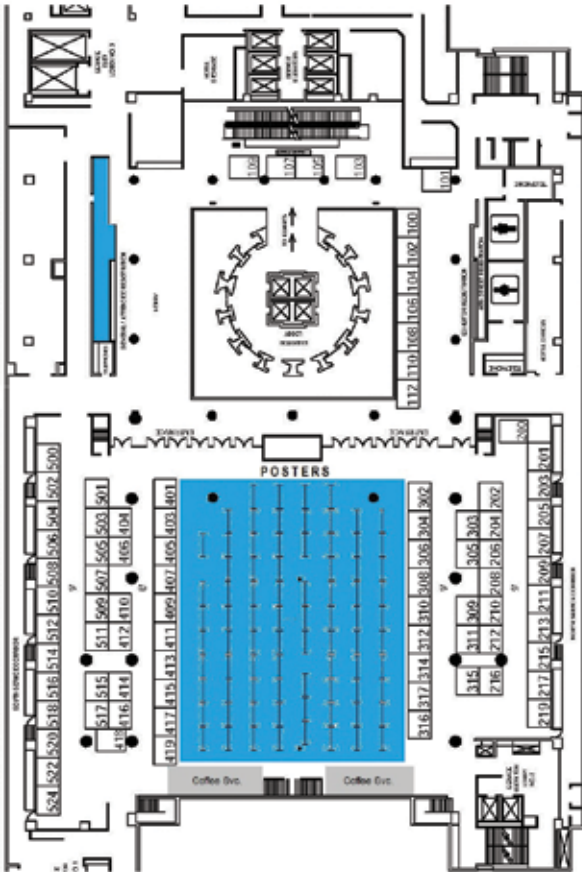
Brookhaven National Laboratory (BNL)

*Nuclear & Particle Physics Directorate*

*Photon Sciences Directorate*

American Physical Society (APS)

*Division of Physics of Beams*



Westside (5<sup>th</sup> Floor)

**Industrial Exhibitors**

Exhibitions are open on March 28<sup>th</sup> from 10AM – 6PM & March 29<sup>th</sup> & 30<sup>th</sup> from 9AM – 6PM.



**Exhibitors registered at press time:**

109 – Advanced Design Consulting USA, Inc.



102 – Advanced Energy Systems, Inc.



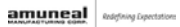
401 – AFT Inc



206 – Agilent Technologies (formerly Varian, Inc.)



414 – Amuneal Manufacturing Corp.



407 – Applied Power Systems, Inc.



203 – Atlas Technologies



515 – AWR Corporation



522 – Bruker Advanced Supercon GmbH



505 – Buckley Systems International



310 – CAEN



502 – Ceramic Magnetics Inc.



516 – CML Engineering Sales, Inc.



305 – Continental Electronics Corporation



514 – CPC



308 – CPI



202 – CST of America, Inc.



105 – Danfysik A/S



312 – Diamond Detectors Ltd.  
314



103 – Dimtel, Inc.



306 – Diversified Technologies, Inc.



506 – Eletta Flow AB



216 – Euclid Techlabs, LLC



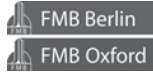
416 – Everson Tesla Inc.



211 – FAR-TECH, Inc.



406 – FMB Berlin & FMB Oxford



204 – Friatec N.A., LLC



315 – Gamma Vacuum



107 – GMW Associates



106 – Hi-Tech Manufacturing, LLC.



418 – Hytec Electronics Ltd.



110 – IE Power Inc.



413 – Incodema Inc.



217 – Instrumentation Technologies



503 – Kepco Inc.



205 – Kress GmbH



112 – Kurt J. Lesker Company



219 – L-3 Electron Devices



213 – Magnetic Metals



303 – Mega Industries, LLC

520 – MEWASA  
North America, Inc.403 – Meyer Tool and  
Manufacturing

309 – Micro Communications, Inc.



208 – Muons, Inc.



316 – National Instruments



210 – Newport Corporation



412 – PAVAC Energy Corp.



100 – Pearson Electronics



207 – PHOTONIS



212 – PHPK Technologies



509 – Plansee Group



415 – QEI Corporation



417 – RadiaBeam  
Technologies, LLC



104 – Research Instruments  
GmbH



302 – Reuter Technologie  
GmbH



511 – SAES Getters USA



311 – ScandiNova Systems AB



304 – SIGMAPHI



409 – Solid Sealing  
Technology, Inc.



411 – SPINNER GmbH



501 – SRI Hermetics



419 – Stangenes Industries, Inc.



108 – Struck Innovative  
Systeme GmbH



517 – Sumitomo (SHI) Cryogenics  
of America, Inc.



404 – TDK-Lambda Americas



410 – Tech-X Corporation



507 – Thales Components Corp.



201 – The Ferrite Company, Inc.



500 – Thomson Broadcast



405 – Tomco Technologies



101 – Toshiba Electron Tubes  
& Devices Co., Ltd



215 – VAT. Inc.



509 – W.C. Heraeus GmbH



418 – W-IE-NE-R,  
Plein & Baus Corp.



508 – XOS



209 –ZTEC Instruments



IEEE-NPSS and APS DPB will have tables  
available located near registration.



Contact:

**Doreen Cantelmo**

*Exhibitor Coordinator*

Email: [cantelmo@bnl.gov](mailto:cantelmo@bnl.gov)

## Satellite Meetings

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The satellite meetings, rooms, dates and times are listed below and are subject to change. Please contact Mei Bai in order to book a satellite meeting during the conference.

### Friday, March 25th -

NPSS AdCom Retreat 07:00 - 18:00  
*Ziegfeld Room, Fourth Floor*

### Saturday, March 26th -

NPSS AdCom Retreat 07:00 - 18:00  
*Ziegfeld Room, Fourth Floor*

### Sunday, March 27th -

APS DPB E. Council Meeting 18:00 - 24:00  
*Gilbert Room, Fourth Floor*

### Monday, March 28th -

APS DPB Business Meeting 12:00 - 14:00  
*Plymouth Room, Sixth Floor*

### Tuesday, March 29th -

PASTC 06:45 - 08:45  
*Brecht Room, Fourth Floor*

BIW12 Prog Committee Meeting 11:00 - 14:00  
*Gilbert Room, Fourth Floor*

PAC OC Meeting 12:00 - 13:30  
*Brecht Room, Fourth Floor*

Magnet Meeting I 12:30 - 17:30  
*Royal Room, Sixth Floor*

FACET Meeting 18:00 - 20:00  
*Brecht Room, Fourth Floor*

ICFA Panel Meeting 18:00 - 20:00  
*Gilbert Room, Fourth Floor*

**Wednesday, March 30th –**

Magnet Meeting II 08:30–12:00

*Royal Room, Sixth Floor*

Teachers Day 08:30–16:00

*Majestic Room, Sixth Floor (Invitation Only)*

Meet APS Journal Editor Reception 15:00–17:00

*Plymouth & Royal Room, Sixth Floor*

Accelerator Physics Education 16:00–18:00

*Brecht Room, Fourth Floor*

NPSS Women in Engineering 17:30–19:30

*Gilbert Room, Fourth Floor (Invitation Only)*

**Teachers Day:**

This day consists of a hands-on workshop, research talks, a welcoming breakfast, as well as a luncheon. This is geared to High School Physics Teachers professional development.

*(Invitation only)*



## Internet

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Wireless internet is available in public areas as well as in the meeting rooms.

User name: PAC2011

Password: NYCNYC

The Internet Café is located in the Uris Room (6th Floor), open from 8:30AM – 5:30PM. Laptops and extra tables will be available for use at this location.

## Proceedings

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The Conference Proceedings will be published electronically by JACoW and IEEE. Contributed papers may be up to three pages long and invited papers up to five pages. To ensure consistency of the conference proceedings, all papers have to meet formal criteria, specified by JACoW.

Guidelines can be found on the JACoW site:

<http://www.jacow.org/>

Authors are required to use the JACoW templates.

The paper submission deadline is March 23rd, 2011.

### **Proceedings Office:**

Authors are requested to check on their papers via the status board located on each floor of the Conference and near the proceedings office, located in the Times Square Room (7th floor).

Authors may also check the status of their papers via the SPMS. Editorial staff will be working in the Times Square Room. Author reception will be located outside the Editorial office.

### **Proceedings Office hours:**

Monday – Thursday: 8:30AM – 6:00PM

Friday: 8:30AM – 2:00PM

To check the status of your papers please log into your SPMS profile at:

<http://appora.fnal.gov/pls/pac11/profile.html>

You can also check the status of papers on the electronic dot board, located at:

<http://appora.fnal.gov/pls/pac11/eDot.html>

Please note that a Red dot means there is a major problem with your paper. Authors will need to go to the Paper Reception area to get the problem corrected. A Yellow dot means changes or corrections have been made, authors are requested to check their paper status on SPMS, and are to proof-read the modified version. Green dots indicate the paper is ready for publication.

### **Oral Sessions**

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All oral presentations will be held in the North and South Broadway Ballrooms (6th Floor).

The speaker preparation room is available for speakers in the Shubert Room (6th Floor). This is an area where speakers can preview/test their presentations.

All speakers must give their presentations from the computer systems set up in the session rooms. Individual laptops cannot be accommodated.

*(Speakers MUST upload their talks to SPMS, <http://appora.fnal.gov/pls/pac11/profile.html>, at least 24 hours in advance of their presentation)*

### **Copyright Forms**

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A copyright form must be turned in before a paper can be accepted for publication. Copyright forms customized for each paper should be downloaded via the link in SPMS and submitted at Paper Reception.

Posters for PAC'11 are to be mounted on boards located in the Westside Ballroom on the 5th floor of the Marriott Marquis. Each board will hold 4 posters. The available surface for each author is, at maximum, 4' x 4' (1.22 m x 1.22 m). This area will accommodate an ARCH E or A0 sized poster in either landscape or portrait orientation.

**Poster Sessions:**

<b>Day</b>	<b>Poster Number</b>	<b>Time Manned</b>
Mon	1 - 160	9:30 - 10:00
		11:00 - 12:00
	161 - 320	15:30 - 16:00
		16:30 - 17:30
Tues	1 - 160	9:30 - 10:00
		11:00 - 12:00
	161 - 320	15:30 - 16:00
		16:30 - 17:30
Wed	1 - 160	9:30 - 10:00
		11:00 - 12:00
	161 - 320	15:00 - 15:30
		16:30 - 17:30
Thu	1 - 160	9:30 - 10:00
		11:00 - 12:00
	161 - 320	14:30 - 16:00
Fri	NONE	NONE

Posters will be put up and available for viewing for an entire day. They should be in place by the beginning of the scheduled day, should be taken down at the end of the day, and manned according to the schedule in the above table (1 hour, either in the morning or afternoon, depending on your paper ID number, as well as during the coffee breaks). In those cases

where presenters have two or more posters, simultaneously, they are requested to split their time equally between them. Any posters not removed by 18:30 will be removed by staff and discarded. **Please note** that on Thursday afternoon posters are manned between 14:30 and 16:00 to allow authors to attend the awards presentations.

Authors are reminded that no contributions are accepted for publication only. Any accepted contributions that are not presented in the oral or poster sessions at the conference will be excluded from the proceedings.

The Scientific Program Committee reserves the right to refuse papers for publication that have not been properly presented or manned in the poster sessions. Manuscripts of contributions to the proceedings (or enlargements of them) are not considered to be posters, and papers presented in this way will not be accepted for publication.

### **Student Poster Sessions:**

A special poster session for students will take place during the conference reception on Sunday, March 27th.

Student posters must be mounted in the Marquis Ballroom on the 9th floor of the Marriott Marquis between 17:00 and 18:00 on Sunday, March 27 and manned from 18:00 to 20:00 for judging. In accordance with the guidelines for publication of contributions, these posters must also be displayed during the regular poster sessions, except for those being presented as Contributed Orals.

*Please refer to the Synoptic table on the back cover, web page or smart phone app for additional info on the Poster Sessions.*

## Identification of Contributions

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The date, type, place and time of the posters and oral presentations can easily be identified from the program code.

Using the example DDTAW###:

- First two letters indicate the day of the week:  
MO, TU, WE, TH, FR

- The third character indicates the type of Presentation –

O (Oral or Tutorial),  
P (Poster)

- The fourth character indicates the time of day for Oral presentations:

A (Before morning coffee),  
B (After morning coffee),  
C (Before afternoon coffee),  
D (After afternoon coffee)

- Fifth character indicates where – (orals only):

B - Whole Broadway ballroom,  
N - North ballroom,  
S - South ballroom

- Finally, the sequence number within the session (two digits for orals, and 3 digits for posters)

*Example:*

**Oral:** MOOAB01 - Monday, oral or tutorial, first session, Broadway ballroom, first talk

**Poster:** WEP101- Wednesday, poster, poster board #101

**Student Travel Grant Awards**

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Sumana Abeyratne	NIU, USA
Robert Ainsworth	Royal Holloway, London
Androula Alekou	Imperial College, London
Kseniya Astrelina	BINP, Russia
Oscar Roberto Blanco	UNAL, Colombia
Summer Blot	Univ. of Chicago, USA
Anastasia Burimova	TSU, Russia
Simon Busold	TU Darmstadt, Germany
Timothy Carlisle	Oxford, UK
Boris Chalykh	ITEP, Russia
Oliver Deppert	TU Darmstadt, Germany
Christian Eckardt	TU Darmstadt, Germany
Nicholas Evans	UT, USA
Punit Gandhi	UCB, USA
James Garland	UMAN, UK
Jeremiah Holzbauer	MSU, USA
Christopher Hopper	ODU, USA
Zen-Wei Huang	NTHU, Taiwan
Florian Hug	TU Darmstadt, Germany
Vikas Jain	RRCAT, India
Andrei Khilkevich	BSU, Republic of Belarus
Marit Klein	KIT, Germany
Masafumi Kumaki	RISE, Japan
Sergey Kutsaev	MEPhI, Russia
Longwei Lai	SINAP, China
Peng Li	IMP, China
Ming-wei Lin	PSU, USA
Xiaohan Liu	TUB, China
Huanli Luo	USTC/NSRL, China
James Maloney	NIU, USA
Yulia Maximenko	MIPT, Russia
Meghan McAteer	UT, USA
Aaron Morris	NIU, USA
Brian Munroe	MIT/PSFC, USA
Milka Nikolic	ODU, USA

Konstantin Nikolskiy	MEPhI, Russia
Edward Nissen	NIU, USA
Gunn Park	Univ. of Chicago, USA
Bhushankumar J. Patil	Univ. of Pune, India
Branko Popovic	Univ. of Iowa, USA
Christopher Prokop	NIU, USA
Mark Alastair Rayner	Oxford, UK
Marwan Rihaoui	NIU, USA
Aakash Sahai	Duke Univ., USA
Arun Saini	Univ. of Delhi, India
Ana Samolov	ODU, USA
Cheyne Scoby	UCLA-PBPL, USA
Zhandos Seksembayev	ENU, Astana
Ki Ryung Shin	ORNL, USA
Alexey Sitnikov	ITEP, Russia
Roxanna Tarkeshian	DESY, Germany
Sumit Tripathi	Devi Ahilya Univ., India
Christopher Tunnell	Oxford, USA
Puneet Veer Tyagi	KEK, Japan
Chen Xiao	IMP, China
Hao Zhang	UMD, USA
Bai Zhenghe	USTC/NSRL, China
Timofey Zolkin	Univ. of Chicago, USA

**Social Events**

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**Sunday, March 27<sup>th</sup>**

Welcome Reception 6:00-10:00PM  
*Terrace, 9<sup>th</sup> Floor*

**Monday, March 28<sup>th</sup>**

Chairman's Reception 6:00-8:00PM  
*Manhattan Ballroom, 8<sup>th</sup> Floor*  
*(By invitation only)*

**Thursday, March 31<sup>st</sup>**

Banquet 7:30-11:00PM  
*Broadway Ballroom, 6<sup>th</sup> Floor*  
*(Banquet ticket required)*

**Brookhaven National Laboratory Tour:**

The BNL tour will occur on Saturday, April 2nd.  
The buses will leave the Marriott at 8:15AM &  
return at 5:30PM.

The tour will have 5 stops:

Energy Recovery Linac (ERL)  
Superconducting Magnet Division  
National Synchrotron Light Source II (NSLSII)  
Accelerator Test Facility (ATF)  
National Synchrotron Light Source I (Tentative)



## **Companion Breakfast**

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The Companion breakfast is on Monday, March 28<sup>th</sup>, located in the Gilbert Room (Fourth Floor). The breakfast is from 9:30AM to 11AM.

## **Companion Tours**

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Fun, Facts & Figures : NYC Sightseeing Tour

(Walking tour of Macy's, Sixth Avenue, the Met, Guggenheim, Plaza Hotel, Little Italy, Trump Towers, etc)

The MET – Metropolitan Museum of Art

Central Park Tour

MoMA – Museum of Modern Art

SoHo & Chelsea Gallery Tour

The Statue of Liberty & Ellis Island  
(Ferry from Battery Park to the  
Statue of Liberty and Ellis Island)

Insiders: China Town & Little Italy

For reservations please visit the PAC'11 website and fill out the registration form, this form will also include detailed info on each tour offered. For additional information on the tours & to pick up your tickets please visit the companion desk located next to the registration desk on the 5<sup>th</sup> Floor.

## **Travel Info**

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Train/Bus Schedules

[www.mta.info/nyct/](http://www.mta.info/nyct/)

Subway Schedule

[www.mta.info/nyct/service/schemain.htm](http://www.mta.info/nyct/service/schemain.htm)

John F. Kennedy Airport (JFK)

<http://www.panynj.gov/airports/jfk.html>

LaGuardia Airport (LGA)

<http://www.panynj.gov/airports/laguardia.html>

Newark Liberty Int. Airport (EWR)

<http://www.panynj.gov/airports/newark-liberty.html>

## **Copying & Banking**

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### **Copying:**

Staples (212) 219-1299

488-92 Broadway

New York, NY 10012

[staples.com](http://staples.com)

### **Banking and Currency Exchange:**

Chase Banks

[www.chase.com](http://www.chase.com)

**The PAC'11 Awards Ceremony will take place on Thursday, 31 March 2011 between 4:00 and 5:30 PM.**

**2011 APS Robert R. Wilson Prize for Achievements in the Physics of Particle Accelerators**

Awarded to Yaroslav Derbenev, Senior Staff Scientist at the Thomas Jefferson National Accelerator Facility



To recognize and encourage outstanding achievement in the physics of particle accelerators, this prize of the American Physical Society is sponsored by the APS Division of Physics of Beams and the Division of Particles and Fields, and the friends of R.R. Wilson. The prize includes a \$5000 award and is named for the late Robert Rathbun Wilson, founding director of the Department of Energy's Fermilab in Illinois.

*Yaroslav Derbenev is honored for a broad range of seminal contributions and innovations in beam physics, including theory and control of polarization with 'Siberian snakes', electron and ionization cooling, round-to-flat beam transformations, FELs, and electron-ion colliders.*

**2011 IEEE-NPSS Particle Accelerator Science and Technology Doctoral Student Award**

Awarded to Alexander Romanenko of the Fermi National Accelerator Laboratory.

To recognize significant and innovative technical contributions to the field of particle accelerator science and technology as demonstrated in a student's doctoral thesis.



*The citation reads: "For contributions to the physics and materials science of superconducting niobium radio-frequency resonating cavities in particular for discovering subtle structural changes that occur during low-temperature baking". The prize includes \$2000 and a plaque.*

## 2011 IEEE-NPSS Particle Accelerator Science and Technology (PAST) Award

The IEEE Nuclear and Plasma Sciences Society awards the Particle Accelerator Science and Technology (PAST) Award to individuals who have made outstanding contributions to the development of particle accelerator science and technology. Two Awards are granted in each occurrence of the Particle Accelerator Conferences held in North America (PAC or IPAC). At least one award will be given to an individual early in his/her career.

Awarded to Alper Garren of University of California at Los Angeles.

*The citation reads: "for Seminal Contributions to Beam Physics and Lattice Design".*



Awarded to Patric Muggli of the University of Southern California.

*The citation reads: "for Seminal Contributions to Beam Physics and Beam-Plasma Interactions."*



## 2011 US Particle Accelerator School Award

Two USPAS achievement prizes are awarded every two years at the Particle Accelerator Conference. One of the two prizes will be awarded to a young scientist under 45 years of age. The prizes are awarded on a competitive basis without bias to race, sex, and/or nationality.

Each winner will receive a certificate of merit and a cash award of \$3000. The awards are made possible by donations from Brookhaven National Laboratory; Fermi Research Alliance, LLC; and Thomas Jefferson National Accelerator Facility.

Awarded to Jean Delayen of Old Dominion University, Thomas Jefferson National Accelerator Facility.



*The citation reads: "for conceiving and developing a variety of superconducting accelerating structures and for his work with young scientists in USPAS and elsewhere."*

Awarded to Zhirong Huang of the SLAC Accelerator National Laboratory.



*The citation reads: "for contributions to the research and development, design, commissioning and operation of the world's first hard x-ray free-electron laser."*

The USPAS prize honors individuals by recognizing their outstanding achievements over the full range of accelerator physics and technology.

### **PAC'11 Student Poster Award**

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On Sunday evening, prior to the opening of the conference the student participants are invited to present their posters for judging. The posters are judged on the significance and originality of their work, and presentation as a poster. The top posters are selected by a group of 12 judges, with the top two earning a \$500 prize. Winners will be listed on the PAC'11 web site awards page.

(Link "awards page" to the hyperlink  
<http://www.c-ad.bnl.gov/pac2011/awards.html>)

## List of New APS-DPB Fellows

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The following list of Division Particle Beams (DPB) fellows was approved by the 2010 APS Council.

Blaskiewicz, Michael

Brookhaven National Laboratory

*Citation: For theoretical and experimental work leading to the first successful implementation of bunched beam stochastic cooling in a high energy ion collider.*

Bruhwyler, David

Tech-X Corp

*Citation: For extensive accomplishments in computations of beam and plasma, including codiscovery of quality beams from laser-plasma interaction, computational methods for electron cooling for ion accelerators, and for discovering the importance of tunneling ionization in plasma wakefield acceleration.*

Gai, Wei

Argonne National Laboratory

*Citation: For his pioneering contributions to the wakefield acceleration of particle beams and his leadership in the development of high current electron beams for accelerator applications.*

Sekutowicz, Jacek

DESY

*Citation: For outstanding contributions to superconducting science and technology resulting in far reaching advances in particle accelerators.*

**List of IEEE-NPSS Fellows**

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Muggli, Patric

University of Southern California

*Citation: For contributions to plasma wakefield acceleration of electrons and positrons.*



**Opening Plenary**

Chair: Vladimir N. Litvinenko

Broadway 08:30 - 09:30

Ballroom

08:30 Opening Remarks

08:45 Understanding Elementary Particle  
Physics with High Energy Colliders*Speaker: Jacobo Konigsberg -  
University of Florida***9:30 - 10:00 Coffee Break***Please Note that there is a Venue change  
after the break***Applications of Accelerators I**

Chair: Alan M. M. Todd

North Broadway Ballroom

10:00 - 12:00

10:00 CBRNE Standoff Detection

*Speaker: Brandon Blackburn - RTN IDS*10:30 Inverse Free Electron Laser Accelerators  
for Driving Compact Light Sources &  
Detection Applications*Speaker: Aaron Tremaine -  
RadiaBeam Technologies*10:45 A Versatile Neutron Source for the Low  
Power ADS GUINEVERE*Speaker: Maud Baylac - LPSC*11:00 State of the Art in Medical and Industrial  
Linear-Accelerator Systems*Speaker: David Whittum -  
Varian Medical Systems*11:30 Maximizing Technology Transfer  
Benefits to Society*Speaker: Andreas Peters - HIT*

**Beam Dynamics I**

Chair: Alex Chao

South Broadway Ballroom

10:00 - 12:00

- 10:00 Beam Dynamics Issues in the SNS Linac  
*Speaker: Andrei P. Shishlo - ORNL*
- 10:30 High Intensity Effects in the SNS Ring  
*Speaker: Sarah M. Cousineau - ORNL*
- 11:00 Longitudinal Relaxation of a Space-Charge Dominated Bunch  
*Speaker: Timothy Koeth - UMD*
- 11:30 Electron Cloud Experiments at Fermilab: Formation and Mitigation  
*Speaker: Robert M. Zwaska - Fermilab*

**12:00 - 13:30 Lunch Break**

**Colliders I**

Chair: Valeri Lebedev

North Broadway Ballroom

13:30 - 15:30

- 13:30 Status of LHC Operations and Physics Program  
*Speaker: Stefano Redaelli - CERN*
- 14:00 Tevatron Accelerator Physics and Operation Highlights  
*Speaker: Alexander Valishev - Fermilab*
- 14:30 Improvements in the RHIC Polarized Proton Operation  
*Speaker: Haixin Huang - BNL*
- 15:00 Status of the KEKB Upgrade  
*Speaker: John W. Flanagan - KEK*

**Beam Dynamics II**

Chair: Viatcheslav V. Danilov  
South Broadway Ballroom  
13:30 - 15:30

- 13:30 Non-neutral Plasma Traps for Accelerator-free Experiments on Space-charge-dominated Beam Dynamics  
*Speaker: Hiromi Okamoto - HU/AdSM*
- 14:00 Numerical Verification of the Power Transfer and Wakefield Coupling in the CLIC Two-beam Accelerator  
*Speaker: Arno E. Candel - SLAC*
- 14:30 Numerical and analytical studies of matched kinetic quasi-equilibrium solutions for an intense charged particle beam propagating through a periodic focusing quadrupole lattice  
*Speaker: Edward Startsev - PPPL*
- 15:00 Time-Dependent Phase-Space Measurements of the Longitudinally Compressing Beam in NDCX-I  
*Speaker: Steven M. Lidia - LBNL*
- 15:15 Space-charge Effects in H- Low-energy Beam Transport of LANSCE  
*Speaker: Yuri Batygin - LANL*

**15:30 – 16:00 Coffee Break**

**Colliders II**

Chair: Bruce P. Strauss  
North Broadway Ballroom  
16:00 - 17:30

- 16:00 Results of Head-on Beam-beam Compensation Studies at the Tevatron  
*Speaker: Giulio Stancari - Fermilab*

- 16:15    Optimizing the Electron Beam  
Parameters for Head-on Beam-beam  
Compensation in RHIC  
*Speaker: Yun Luo - BNL*
- 16:30    Advanced Crystal Collimation Studies at  
the Tevatron (T-980)  
*Speaker: Viktoriya Zvoda - Fermilab*
- 16:45    Beam Losses Due To Abrupt Crab Cavity  
Failures In HL-LHC  
*Speaker: Rama Calaga - BNL*
- 17:00    Chromaticity Correction for a Muon  
Collider Optics  
*Speaker: Eliana Gianfelice-Wendt - Fermilab*
- 17:15    Muon Collider Interaction Region and  
Machine-detector Interface Design  
*Speaker: Nikolai V. Mokhov - Fermilab*

**Beam Dynamics II**

Chair: Lia Merminga

South Broadway Ballroom

16:00 - 17:30

- 16:00    Space-Charge Effects in Bunched and  
Debunched Beams  
*Speaker: Brian L. Beaudoin - UMD*
- 16:15    Nonlinear Resonance Measurements  
and Correction in Storage Rings  
*Speakers: Riccardo Bartolini - Diamond*
- 16:30    Studies of RF Noise Induced Bunch  
Lengthening at the LHC  
*Speakers: Themis Mastorides - SLAC*
- 16:45    Dancing Bunches as van Kampen Modes  
*Speaker: Alexey Burov - Fermilab*

17:00 3D Electromagnetic Design and Beam Dynamics Simulations of a Radio-Frequency Quadrupole

*Speaker: Brahim Mustapha - ANL*

17:15 Beam Dynamics Simulations on the Bilbao Accelerator RFQ

*Speaker: David de Cos - ESS Bilbao*

**Chairman's Reception**

8<sup>th</sup> Floor

Manhattan Ballroom

18:00 - 20:00

**Colliders III**

Chair: Stephen Gourlay  
North Broadway Ballroom  
08:30 - 09:30

- 08:30 Recent SuperB Design Choices Improve Next-Generation  $e+e-$  B-factory Collider  
*Speaker: Walter Wittmer - SLAC*
- 08:45 High Luminosity Electron-Hadron Collider eRHIC  
*Speaker: Vadim Ptitsyn - BNL*
- 09:00 Lattice Design for the Future ERL-based Electron Hadron Colliders eRHIC and LHeC  
*Speaker: Dejan Trbojevic - BNL*
- 09:15 Feedback Scheme for Kink Instability in ERL Based Electron Ion Collider  
*Speaker: Yue Hao - BNL*

**Tutorial on Accelerator-Based Light Sources**

Chair: William Barletta  
South Broadway Ballroom  
08:30 - 09:30

- 08:30 Tutorial on Accelerator-Based Light Sources  
*Speaker: Michael Borland - ANL*

**9:30 - 10:00 Coffee Break**

**Advanced Concepts and Future Directions I**

Chair: Chan Joshi  
North Broadway Ballroom  
10:00 - 12:00

- 10:00 Acceleration Beyond 1 GeV Using Ionization Induced Injection  
*Speaker: Kenneth Marsh - UCLA*
- 10:30 Progress Towards a Free-electron Laser Driven by a Laser-plasma Accelerator  
*Speaker: Florian J. Gruener - LMU*
- 11:00 Resonant Excitation of Plasma Wakefields in the Linear and Nonlinear Regime  
*Speaker: Patric Muggli - USC*
- 11:15 Plasma Wakefield Experiments at FACET  
*Speaker: Mark Hogan - SLAC*
- 11:30 A Proposed Experimental Test of Proton-driven Plasma Wakefield Acceleration based on CERN SPS  
*Speaker: Guoxing Xia - MPI-P*
- 11:45 Production of 25 MeV Protons in CO<sub>2</sub> Laser-Plasma Interactions in a Gas Jet  
*Speaker: Daniel Haberberger - UCLA*

**Light Sources and FELs I**

Chair: Rodney Gerig  
South Broadway Ballroom  
10:00 - 12:00

- 10:00 Technical Challenges in the LCLS, Commissioning and Upgrades  
*Speaker: John N. Galayda - SLAC*
- 10:30 Construction and Beam Commissioning Status of the Japanese XFEL Facility  
*Speaker: Tsumoru Shintake - RIKEN/Spring-8*
- 11:00 Status of the NSLS-II Project  
*Speaker: Ferdinand J. Willeke - BNL*

11:30 Challenge of MAX-IV Towards a Multi-Purpose Highly Brilliant Light Source

*Speaker: Mikael Eriksson - MAX-lab*

**12:00 – 13:30 Lunch Break**

**Beam Dynamics IV**

Chair: John R. Cary

North Broadway Ballroom

13:30 - 15:30

13:30 Accurate Computation of Transfer Maps for Realistic Beamline Elements from Surface Data

*Speaker: Chad E. Mitchell - NRL*

14:00 Spin Manipulating Polarized Protons and Deuterons

*Speaker: Vasily Morozov - ODU*

14:30 Application of the Eigen-Emittance Concept to Design Ultra-Bright Electron Beams

*Speaker: Leanne Duffy - LANL*

14:45 Subpicosecond Electron Bunch Train Production Using a Phase-Space Exchange Technique: Simulation Versus Experiment

*Speaker: Yin-E Sun - Fermilab*

15:00 A Theoretical Model for Emittance Exchange Induced by Linear Coupling

*Speaker: Hong Qin - PPPL*

15:15 Emittance Exchange and Bunch Compression

*Speaker: Alexander Zholents - ANL*

**Light Sources and FELs II**

Chair: Samuel Krinsky

South Broadway Ballroom

13:30 - 15:30



- 13:30 Energy Recovery Linacs for Light Source Applications  
*Speaker: George R. Neil - JLAB*
- 14:00 Accelerator Aspects of the Advance Photon Source Upgrade  
*Speaker: Louis Emery - ANL*
- 14:15 Status of the ALS Upgrade  
*Speaker: Christoph Steier - LBNL*
- 14:30 Upgrade of Accelerator Complex at Pohang Light Source Facility (PLS-II)  
*Speaker: Kyung-Ryul Kim - PAL*
- 14:45 Cornell ERL Research and Development  
*Speaker: Christopher Mayes - CLASSE*
- 15:00 An VUV FEL for Producing Circularly Polarized Compton Gamma-ray Beams in the 70 to 100 MeV Region  
*Speaker: Ying K. Wu - FEL/Duke University*
- 15:15 A Design of an Ultimate Storage Ring for Future Light Source  
*Speaker: Yichao Jing - IUCEEM*

**15:30 – 16:00 Coffee Break**

**Beam Dynamics V**  
Chair: Robert Hettel  
North Broadway Ballroom  
16:00 - 17:30

- 16:00 CSR Fields from using a Direct Numerical Solution of Maxwell's Equations  
*Speaker: Alexander Novokhatski - SLAC*
- 16:15 Exploration of Parallel Optimization Techniques for Accelerator Design Techniques  
*Speaker: Yusong Wang - ANL*

- 16:30 Beam Dynamics Studies of Parallel-Bar Deflecting Cavities  
*Speaker: Shahid Ahmed - JLAB*
- 16:45 Dynamic Aperture Optimization using Genetic Algorithms at the ALS  
*Speaker: Changchun Sun - LBNL*
- 17:00 High Fidelity Calculation of Wakefields for Short Bunches  
*Speaker: Cho-Kuen Ng - SLAC*
- 17:15 Action and Phase Jump Analysis for LHC Orbits  
*Speaker: Oscar R. Blanco - UNAL*

**Light Sources and FELs III**

Chair: George H. Hoffstaetter

South Broadway Ballroom

16:00 - 17:30

- 16:00 MaRIE X-Ray Free-Electron Laser Pre-Conceptual Design  
*Speaker: Bruce Carlsten - LANL*
- 16:15 A Next Generation Light Source Facility at LBNL  
*Speaker: John Corlett - LBNL*
- 16:30 Experimental Demonstration of the Echo-enabled Harmonic Generation Technique for Seeded FELs  
*Speaker: Dao Xiang - SLAC*
- 16:45 Free Electron Laser Seeding Experiments at SPARC  
*Speaker: Luca Giannessi - ENEA C.R. Frascati*

17:00 Optics-free X-ray FEL Oscillator

*Speaker: Dmitry Kayran - BNL*

17:15 Optimizing RF Gun Cavity Geometry  
within an Automated Injector Design  
System

*Speaker: Alicia Hofler - JLAB*

**Instrumentation and Controls I**

Chair: Jeff Corbett  
North Broadway Ballroom  
08:30 - 09:30

08:30 Accelerator Timing Systems Overview

*Speaker: Javier Serrano - CERN*

09:00 Linac Timing, Synchronization and Active Stabilization

*Speaker: Florian Loehl - CLASSE*

**Tutorial on Heavy Ion Driven Inertial Fusion**

Chair: Sandra Biedron  
South Broadway Ballroom  
08:30 - 09:30

08:30 Tutorial on Heavy Ion Driven Inertial Fusion

*Speaker: William M. Sharp - LLNL*

**9:30 - 10:00 Coffee Break**

**Instrumentation and Controls II**

Chair: Stan O. Schriber  
North Broadway Ballroom  
10:00 - 12:00

10:00 Simultaneous Orbit, Tune, Coupling, and Chromaticity Feedback at RHIC

*Speaker: Michiko Minty - BNL*

10:30 Real-Time Beam Control at the LHC

*Speaker: Ralph J. Steinhagen - CERN*

11:00 BOY, A Modern Graphical Operator Interface Editor and Runtime

*Speaker: Xihui Chen - ORNL*

11:15 Multipurpose Controller Based on a FPGA with EPICS Integration

*Speaker: Pablo Echevarria - ESS Bilbao*

11:30 Concept and Architecture of the RHIC LLRF Upgrade Platform

*Speaker: Kevin Smith - BNL*

11:45 LARP LHC 4.8 GHz Schottky System Initial Commissioning with Beam

*Speaker: Ralph J. Pasquinelli - Fermilab*

### **Accelerator Technology I**

Chair: Vladimir Shiltsev  
South Broadway Ballroom  
10:00 - 12:00

10:00 Progress in Development of Wakefield Accelerators

*Speaker: Wim Leemans - LBNL*

10:30 Synchronization of X-Rays and Lasers for Pump-Probe Experiments at Ultrafast Light Sources

*Speaker: John Byrd - LBNL*

11:00 Demonstration of a Two-Stage Laser Wakefield Accelerator

*Speaker: Bradley B. Pollock - LLNL*

11:15 Improved Energy Changes at the Linac Coherent Light Source

*Speaker: Nate Lipkowitz - SLAC*

11:30 Status of the Short-Pulse X-ray Project (SPX) at the Advanced Photon Source

*Speaker: Ali Nassiri - ANL*

11:45 Status and Specifications of a Project X Front End Accelerator Test Facility at Fermilab

*Speaker: Jim Steimel - Fermilab*

**12:00 – 13:00 Lunch Break**

**Instrumentation and Controls III**

Chair: Shane R. Koscielniak

North Broadway Ballroom

13:00 - 15:00

13:00 Laser Based Diagnostics for Measuring  
H minus Beam Parameters

*Speaker: Yun Liu - ORNL*

13:30 A Non-Destructive Profile Monitor for  
High Intensity Beams

*Speaker: Willem Blokland - ORNL*

14:00 Operational Results from the LHC  
Luminosity Monitors

*Speaker: Ryoichi Miyamoto - BNL*

14:15 Electron Beam Diagnostics of the JLab  
UV FEL

*Speaker: Pavel Evtushenko - JLAB*

14:30 Beam Halo Measurements at UMER and  
the JLAB FEL using an Adaptive Masking  
Method

*Speaker: Hao Zhang - UMD*

14:45 Femtosecond Resolved Determination  
of Electron Beam and XUV Seed Pulse  
Temporal Overlap in sFLASH

*Speaker: Roxana Tarkeshian - Uni HH*

**Accelerator Technology II**

Chair: Giorgio Apollinari

South Broadway Ballroom

13:00 - 15:00

13:00 Design and Test of Long Nb<sub>3</sub>Sn Magnets  
within the LARP Collaboration

*Speaker: GianLuca Sabbi - LBNL*

- 13:30 Development of 11 T Nb<sub>3</sub>Sn Dipole for LHC Upgrades  
*Speaker: Alexander V Zlobin - Fermilab*
- 13:45 HTS Magnets for Accelerator and Other Applications  
*Speaker: Ramesh C. Gupta - BNL*
- 14:00 Integrated EM & Thermal Simulations with Upgraded VORPAL Software  
*Speaker: David Smithe - Tech-X Corp.*
- 14:15 Experience of the Cryogenic System for Taiwan Light Source  
*Speaker: Feng-Zone Hsiao - NSRRC*
- 14:30 The Injector Cryomodule for e-Linac at TRIUMF  
*Speaker: Robert E. Laxdal - TRIUMF*
- 14:45 Crab Cavity and Cryomodule Prototype Development for the Advanced Photon Source  
*Speaker: Haipeng Wang - JLAB*

**15:00 – 15:30 Coffee Break**

**Instrumentation and Controls IV**

Chair: Marion White

North Broadway Ballroom

15:30 - 17:00

- 15:30 Overview of System Specifications for Bunch by Bunch Feedback Systems  
*Speaker: Dmitry Teytelman - Dimtel*
- 16:00 KEK ATF Beam Instrumentation Program  
*Speaker: Nobuhiro Terunuma - KEK*
- 16:30 Performance Optimization for the LNL Fast Orbit Feedback System  
*Speaker: Daniel de Oliveira Tavares - LNL*

- 16:45 NSLS-II Fast Orbit Feedback with Individual Eigenmode Compensation

*Speaker: Yuke Tian - BNL*

**Accelerator Technology III**

Chair: Rok Ursic

South Broadway Ballroom

15:30 - 17:00

- 15:30 Design Studies and Optimization of Future X-ray FELs Based on Advanced High Frequency Linacs

*Speaker: Faya Wang - SLAC*

- 16:00 High-Power Targets: Experience and R&D for 2 MW

*Speaker: Patrick Hurh - Fermilab*

- 16:30 CEBAF 200 keV Inverted Electron Gun

*Speaker: Joseph M. Grames - JLAB*

- 16:45 High Gradient Normal Conducting Radio Frequency Photoinjector System for Sincrotrone Trieste

*Speaker: Ronald Agustsson - RadiaBeam*

**Women in Engineering Reception**

Gilbert Room

4<sup>th</sup> Floor

17:30 - 19:30



**Tutorial on Plasma-Based Accelerators**

Chair: Yu-Jiuan Chen  
 North Broadway Ballroom  
 08:30 - 09:30

- 08:30 Tutorial on Plasma-Based Accelerators  
*Speaker: Warren Mori - UCLA*

**Accelerator Technology IV**

Chair: David Sutter  
 South Broadway Ballroom  
 08:30 - 09:30

- 08:30 On the Importance of Symmetrizing RF Coupler Fields for Low Emittance Beams  
*Speaker: Zenghai Li - SLAC*
- 08:45 Solid State RF Power - The route to 1W per Euro Cent?  
*Speaker: Oliver Heid - Siemens AG*
- 09:00 Status of the Oak Ridge Spallation Neutron Source (SNS) RF Systems  
*Speaker: Thomas Hardek - ORNL*
- 09:15 Design of Induction Accelerating Cavity for a Helium Ion Accelerator  
*Speaker: Yucun Xu - USTC/NSRL*

**9:30 - 10:00 Coffee Break****Advanced Concepts and Future Directions III**

Chair: Patric Muggli  
 North Broadway Ballroom  
 10:00 - 12:00

- 10:00 R&D towards a Neutrino Factory or Muon Collider and Status of International MICE (Muon Ionization Cooling Experiment)  
*Speaker: Michael Zisman - LBNL*

- 10:30 Muon Collider Final Cooling in 30-50 T Solenoids  
*Speaker: Robert B. Palmer - BNL*
- 10:45 Proof-of-Principle Experiment for FEL-based Coherent Electron Cooling  
*Speaker: Gang Wang - BNL*
- 11:00 Experiment to Demonstrate Acceleration in Optical Photonic Band Gap Structures  
*Speaker: Robert J. England - SLAC*
- 11:30 Design and Testing of Advanced Photonic Bandgap (PBG) Accelerator Structures  
*Speaker: Brian Munroe - MIT/PSFC*
- 11:45 Wakefield Breakdown Test of a Diamond-Loaded Accelerating Structure  
*Speaker: Sergey P. Antipov - Euclid TechLabs, LLC*

**Accelerator Technology V**

Chair: Paul Schmor

South Broadway Ballroom

10:00 - 12:00

- 10:00 Developments in Superconducting Insertion Devices  
*Speaker: Elizabeth R. Moog - ANL*
- 10:30 Optimization of Magnet Stability and Alignment for NSLS-II  
*Speaker: Sushil Sharma - BNL*
- 11:00 Magnetic Axis Determination of Pulsed Solenoids, with Application to the NDCX-II Induction Accelerator  
*Speaker: Diego Arbelaez - LBNL*
- 11:15 Insertion Device Development at NSLS-II: Current Status and Future Plans  
*Speaker: Toshiya Tanabe - BNL*

11:30 Extruded Aluminum Vacuum Chambers  
for Insertion Devices

*Speaker: Emil Trakhtenberg - ANL*

11:45 Thin Film Coatings for Suppressing  
Electron Multipacting in Particle  
Accelerators.

*Speaker: Pedro C. Pinto - CERN*

**12:00 – 13:30 Lunch Break**

**Sources and Medium Energy I**

Chair: Mattew Poelker  
North Broadway Ballroom  
13:30 - 15:30

13:30 Cathodes for Photoemission Guns

*Speaker: Luca Cultrera - CLASSE*

14:00 High Intensity Proton Beam Acceleration  
in the J-PARC Synchrotrons

*Speaker: Masahito Yoshii - KEK/JAEA*

14:15 Electron Linac Photo-fission Driver for  
the Rare Isotope Program at TRIUMF

*Speaker: Shane R. Koscielniak - TRIUMF*

14:30 High-Power Options for LANSCE

*Speaker: Robert Garnett - LANL*

14:45 ATLAS Upgrade

*Speaker: Peter Ostroumov - ANL*

15:00 Flux-coupled Cyclotron Stack I:  
Optimization for Maximum Beam Power  
and Brightness

*Speaker: Peter M. McIntyre - Texas A&M U.*

15:15 Isochronous (CW) High Intensity Non-  
scaling FFAG Proton Drivers

*Speaker: Carol Johnstone - Fermilab*

**Accelerator Technology VI**

Chair: Liu Lin

South Broadway Ballroom

13:30 - 15:30

- 13:30 Would >50 MV/m be Possible with Superconducting RF Cavities?  
*Speaker: Tsuyoshi Tajima - LANL*
- 14:00 SRF Materials R&D  
*Speaker: Lance Cooley - Fermilab*
- 14:30 R&D Status for In-situ Plasma Surface Cleaning of SRF Cavities at Spallation Neutron Source  
*Speaker: Sang-Ho Kim - ORNL*
- 14:45 JLab SRF Cavity Fabrication Errors, Consequences and Lessons Learned  
*Speaker: Frank Marhauser - JLAB*
- 15:00 Nine-cell TESLA Shape Cavities Produced from Hydroformed Cells  
*Speaker: Peter Kneisel - JLAB*
- 15:15 Progress in Cavity and Cryomodule Design for the Project X Linac  
*Speaker: Mark S. Champion - Fermilab*

**15:30 – 16:00 Coffee Break**

*Please Note that there is a Venue change after the break*

**Awards Ceremony**

Chair: Victor P. Suller

Broadway Ballroom

16:00 - 17:30

**Conference Dinner**

Broadway Ballroom

6<sup>th</sup> Floor

19:30 - 21:00

**Sources and Medium Energy II**

Chair: Kevin Jones  
North Broadway Ballroom  
08:30 - 09:30

- 08:30 The European Spallation Source  
*Speaker: Steve Peggs - ESS*
- 08:45 DIANA, a Next Generation Deep Underground Accelerator Facility  
*Speaker: Daniela Leitner - NSCL*
- 09:00 High-Intensity, High-Brightness Polarized and Unpolarized Beam Production in Charge-Exchange Collisions  
*Speaker: Anatoli Zelenski - BNL*
- 09:15 Femtosecond RF Gun Based MeV Electron Diffraction  
*Speaker: Jinfeng Yang - ISIR*

**Tutorial on High-Brightness Photoinjectors**

Chair: Todd Satogota  
South Broadway Ballroom  
08:30 - 09:30

- 08:30 Tutorial on High Brightness Photoinjectors  
*Speaker: David Dowell - SLAC*

**09:30 - 10:00 Coffee Break****Sources and Medium Energy III**

Chair: Ivan V. Bazarov  
North Broadway Ballroom  
10:00 - 12:00

- 10:00 Experience with Recently Commissioned High Power Proton Accelerators and Prospects for the Future  
*Speaker: Stuart Henderson - Fermilab*

- 10:30 Technical Challenges in Design and Construction of FRIB  
*Speaker: Richard York - NSCL*
- 11:00 Project X – New Multi Megawatt Proton Source at Fermilab  
*Speaker: Sergei Nagaitsev - Fermilab*
- 11:30 Commissioning of the 20MV Superconducting Linac Upgrade at TRIUMF  
*Speaker: Marco Marchetto - TRIUMF*

**Accelerator Technology VII**

Chair: John Erickson

South Broadway Ballroom

10:00 - 12:00

- 10:00 World-wide Experience with SRF Facilities  
*Speaker: Andrew Hutton - JLAB*
- 10:30 RF Systems for Superconducting Linacs  
*Speaker: Wolfgang Anders - HZB*
- 11:00 Progress on Superconducting RF for the Cornell Energy-Recovery-Linac  
*Speaker: Matthias Liepe - CLASSE*
- 11:15 The NSLS-II RF Systems  
*Speaker: James Rose - BNL*
- 11:30 1.3 GHz Superconducting RF Cavity Program at Fermilab  
*Speaker: Camille Ginsburg - Fermilab*
- 11:45 High Current Superconducting Cavity Design at BNL  
*Speaker: Wencan Xu - BNL*

**12:00 – 13:30 Lunch Break**

*Please Note that there is a Venue change  
after the break*

**Closing Plenary**

Chair: Thomas Roser

Broadway Ballroom

13:30 – 15:15

13:30 Understanding Nuclear Physics with  
Accelerators

*Speaker: Abhay Deshpande - Stony  
Brook University*

14:15 Science with Light and Neutron  
Sources

*Speaker: Sunil K. Sinha - UCSD*

15:00 *Closing Remarks*

## Monday, March 28

28-Mar-11 08:30 – 17:30

Westside Ballroom

### Monday Posters

#### Advanced Concepts and Future Directions

- MOP001 **Muon Charge Separation for Muon Collider 6D Cooling** – *R. B. Palmer (BNL), R.C. Fernow (BNL)*
- MOP002 **Six-dimensional Cooling for a Muon Collider in a Tapered Sequence of Periodic Lattices** – *R. B. Palmer (BNL), R.C. Fernow (BNL)*
- MOP003 **Six-dimensional Bunch Merging for Muon Collider Cooling** – *R. B. Palmer (BNL), R.C. Fernow (BNL)*
- MOP004 **Scaling of the Plasma Wakefield Accelerator for a Linear Collider** – *P. Muggli (USC) R.W. Assmann (CERN)*
- MOP005 **Two-Color IFEL Microbunching at UCLA** – *F.H. O'Shea (UCLA), P. Musumeci, J.B. Rosenzweig (UCLA)*
- MOP006 **Calculation on the Band Gap and the Design of the Quasiperiodic Photonic Crystal Accelerating Structure** – *H. Fan (USTC/NSRL)*
- MOP007 **The Development Status of Compact Linear Accelerator in Korea** – *B.S. Lee (Korea Basic Science Institute), M. Won (Korea Basic Science Institute)*
- MOP008 **Upgrade of the Argonne Wakefield Accelerator Facility (AWA) and Commissioning of a New RF Gun for Drive Beam Generation** – *M.E. Conde (ANL), D.S. Doran, W. Gai, R. Konecny, W. Liu, J.G. Power, Z.M. Yusof (ANL) S.P. Antipov, C.-J. Jing (Euclid TechLabs, LLC) E.E. Wisniewski (Illinois Institute of Technology)*
- MOP009 **Status and Plans for an SRF Accelerator Test Facility at Fermilab** – *J.R. Leibfritz (Fermilab), R. Andrews, K. Carlson, B. Chase, M.D. Church, E.R. Harms, A.L. Klebaner, M.J. Kucera, S.L. Lackey, A. Martinez, S. Nagaitsev, L.E. Nobrega, J. Reid, M. Wendt, S.J. Wesseln (Fermilab) P. Piot (Northern Illinois University)*
- MOP010 **Resonance, Particle Stability, and Acceleration in the Micro-accelerator Platform** – *J.C. McNeur (UCLA), J.B. Rosenzweig, G. Travish, J. Zhou (UCLA) R.B. Yoder (Manhattanville College)*
- MOP011 **Standing Wave Accelerator Based on a Periodic Dielectric-Lined Waveguide** – *X. Wei (UCLA), J.B. Rosenzweig (UCLA)*



## Monday, March 28

- MOP012 **Ultra-High Gradient, Compact S-Band Accelerating Structure** – *L. Faillace (RadiaBeam), R.B. Agustsson, P. Frigola, A.Y. Murokh (RadiaBeam) V.A. Dolgashev (SLAC) J.B. Rosenzweig (UCLA) V. Yakimenko (BNL)*
- MOP013 **Status of the NLC Test Accelerator Facility at SLAC** – *M.P. Dunning (SLAC)*
- MOP014 **Upgrades and Future Experiments at the NLCTA** – *M.P. Dunning (SLAC)*
- MOP015 **An X-band Gun Test Area at SLAC** – *C. Limborg-Deprey (SLAC), C. Adolphsen, T.S. Chu, M.P. Dunning, C. Hast, A.E. Vlieks, D.R. Walz, F. Wang (SLAC) F.V. Hartemann, T.L. Houck, R.A. Marsh (LLNL)*
- MOP016 **Preliminary Simulations of Plasma Wakefield Accelerator Experiments at FACET** – *W. An (UCLA), C. Joshi, W. Lu, W.B. Mori (UCLA) M.J. Hogan (SLAC) C. Huang (LANL)*
- MOP017 **Frictional Cooling for a Muon Collider** – *Y. Bao (MPI für Physics) A. Caldwell, D. Greenwald, G.X. Xia (MPI-P)*
- MOP018 **The Impact of Beam Emittance on BSM-Physics Discovery Potential at a Muon Collider** – *D. Greenwald (MPI-P)*
- MOP019 **Performance of the Bucked Coils Muon Cooling Lattice for the Neutrino Factory** – *A. Alekou (Imperial College of Science and Technology, Department of Physics) J. Pasternak (STFC/RAL) C.T. Rogers (STFC/RAL/ASTeC)*
- MOP020 **The MICE Beam Line Commissioning** – *M. Apollonio (Imperial College of Science and Technology, Department of Physics)*
- MOP021 **Particle Rate in MICE Muon Beamline and Induced Host Accelerator Beam Loss** – *A.J. Dobbs (Imperial College of Science and Technology, Department of Physics)*
- MOP022 **A Comparison of Steps 3 and 4 in the Muon Ionisation Cooling Experiment (MICE)** – *T. Carlisle (JAI)*
- MOP023 **Particle Tracking and Beam Matching Through the New Variable Thickness MICE Diffuser** – *V. Blackmore (OXFORDphysics), J.H. Cobb (OXFORDphysics)*
- MOP024 **A Preliminary Phase Space Data Analysis of the MICE Stage 1 Beam Line** – *M.A. Rayner (OXFORDphysics)*

## Monday, March 28

- MOP025 **Parametric Ionization Cooling with Fringe Focusing Bending Magnets** – *V. Balbekov (Fermilab)*
- MOP026 **Adiabatic Muon Cooling Channel with Li Lenses and High Field Solenoids** – *V. Balbekov (Fermilab)*
- MOP027 **Four-Coil Superconducting Helical Solenoid Model for MANX** – *V.S. Kashikhin (Fermilab), V. Kashikhin, M.J. Lamm, A.V. Zlobin (Fermilab) R.P. Johnson, S.A. Kahn (Muons, Inc)*
- MOP028 **Modeling the High-Field Section of a Muon Helical Cooling Channel** – *M.L. Lopes (Fermilab), E.Z. Barzi, V.S. Kashikhin, A.V. Zlobin (Fermilab) R.P. Johnson, S.A. Kahn (Muons, Inc)*
- MOP029 **Muon Capture, Phase Rotation, and Precooling in Pressurized RF Cavities** – *D.V. Neuffer (Fermilab) C.M. Ankenbrandt, R.P. Johnson, C. Y. Yoshikawa (Muons, Inc)*
- MOP030 **Muon Capture for a Muon Collider** – *D.V. Neuffer (Fermilab), K. Yonehara (Fermilab) C. Y. Yoshikawa (Muons, Inc)*
- MOP031 **Simulation of RF Dark Current in Presence of Helical Magnetic Field** – *G.V. Romanov (Fermilab), V.S. Kashikhin (Fermilab)*
- MOP032 **High Pressure RF Cavity Test at Fermilab** – *K. Yonehara (Fermilab), A. Moretti, M. Popovic, A.V. Tollestrup (Fermilab) G. Flanagan, R.P. Johnson, M. Notani (Muons, Inc) P.M. Hanlet, Y. Torun (IIT) D.M. Kaplan (Illinois Institute of Technology)*
- MOP033 **Experimental Result of High Pressure RF Cavity with Intense Proton Beam at Fermilab** – *K. Yonehara (Fermilab), A. Moretti, M. Popovic, A.V. Tollestrup (Fermilab) P.M. Hanlet (IIT) D.M. Kaplan (Illinois Institute of Technology) M. Notani (Muons, Inc)*
- MOP034 **Physics in a High Pressure RF Cavity with Intense Beam for Muon Colliders** – *K. Yonehara (Fermilab), M. Chung, A.V. Tollestrup (Fermilab) R.P. Johnson (Muons, Inc)*
- MOP035 **Six Dimensional Helical Muon Beam Cooling Channel Dynamics** – *K. Yonehara (Fermilab) C.M. Ankenbrandt, R.P. Johnson (Muons, Inc) Y.S. Derbenev (JLAB)*

- MOP036 **Ionization Cooling Simulations in Epicyclic Twin-Helix Channel** – *A. Afanasev (Hampton University) Y.S. Derbenev, V.S. Morozov (JLAB) V. Ivanov, R.P. Johnson (Muons, Inc)*
- MOP037 **Muon Ionization Cooling Experiment: Controls and Monitoring** – *P.M. Hanlet (IIT)*
- MOP038 **Muon Cooling Channel Emittance Measurement Improvements With Fast TOF Detectors** – *R.J. Abrams (Muons, Inc), C.M. Ankenbrandt, G. Flanagan, V. Ivanov, S.A. Kahn, M. Notani (Muons, Inc) H.J. Frisch (Enrico Fermi Institute, University of Chicago)*

**Instrumentation and Controls**

- MOP039 **A Gas-Cherenkov Calorimeter for High Intensity Beam Environments** – *R.J. Abrams (Muons, Inc) J.M. Hauptman (ISU)*

**Advanced Concepts and Future Directions**

- MOP040 **Fast Time-of-Flight System for Muon Cooling Experiments** – *R.J. Abrams (Muons, Inc), C.M. Ankenbrandt, G. Flanagan, V. Ivanov, S.A. Kahn, M. Notani (Muons, Inc) H.J. Frisch (Enrico Fermi Institute, University of Chicago)*
- MOP041 **17 GHz Overmoded Dielectric Photonic Bandgap Accelerator Cavity** – *A.M. Cook (MIT/PSFC), B.J. Munroe, M.A. Shapiro, R.J. Temkin (MIT/PSFC)*
- MOP042 **Design of a Superconducting Photonic Band Gap Structure Cell** – *E.I. Simakov (LANL) C.H. Boulware, T.L. Grimm (Niowave, Inc.)*
- MOP043 **Simulations of a Muon Linac for a Neutrino Factory** – *K.B. Beard (Muons, Inc), R.P. Johnson (Muons, Inc) M. Aslaninejad, C. Bontoiu, J.K. Pozimski (Imperial College of Science and Technology, Department of Physics) S.A. Bogacz (JLAB)*
- MOP044 **Project-X, Neutrino Factories, and Muon Colliders** – *G. Flanagan (Muons, Inc), R.J. Abrams, C.M. Ankenbrandt, M.A.C. Cummings, R.P. Johnson (Muons, Inc) M. Popovic (Fermilab)*
- MOP045 **Incorporating RF into a Muon Helical Cooling Channel** – *S.A. Kahn (Muons, Inc), M.L. Neubauer (Muons, Inc) K. Yonehara (Fermilab)*
- MOP046 **RF Breakdown in Pressurized Cavities** – *R. Sah (Muons, Inc), R.P. Johnson, M.L. Neubauer (Muons, Inc) M. BastaniNejad, A.A. Elmustafa (Old Dominion University) D. Li (LBNL)*

## Monday, March 28

- MOP047 **Quasi-Isochronous Muon Collection Channel for a Neutrino Factory and Muon Collider** – C. Y. Yoshikawa (Muons, Inc), C.M. Ankenbrandt, R.P. Johnson (Muons, Inc) D.V. Neuffer (Fermilab)
- MOP048 **Quasi-Isochronous Muon Collection and Ionization Cooling Channels to Stop Muon Beams** – C. Y. Yoshikawa (Muons, Inc), C.M. Ankenbrandt (Muons, Inc) D.V. Neuffer, M. Popovic (Fermilab)
- MOP049 **EPIC Simulations in COSY** – J.A. Maloney (Northern Illinois University), B. Erdelyi (Northern Illinois University) A. Afanasev (Hampton University) S.A. Bogacz, Y.S. Derbenev, V.S. Morozov (JLAB) V. Ivanov, R.P. Johnson (Muons, Inc)
- MOP050 **EPIC Muon Cooling Simulations using COSY INFINITY** – J.A. Maloney (Northern Illinois University), B. Erdelyi (Northern Illinois University) A. Afanasev, R.P. Johnson (Muons, Inc) S.A. Bogacz, Y.S. Derbenev (JLAB) V.S. Morozov (ODU)
- MOP051 **End-to-End Simulation of an Inverse Cyclotron for Muon Cooling** – K. Paul (Tech-X), E. Cormier-Michel (Tech-X) T. Hart, D.J. Summers (UMiss)
- MOP052 **Matched Optics of Muon RLA and Non-Scaling FFAG Arcs** – V.S. Morozov (JLAB), S.A. Bogacz (JLAB) D. Trbojevic (BNL)
- MOP053 **Measurement of Neutral Particle Contamination in the MICE Muon Beam** – L. Coney (UCR), R.R.M. Fletcher (UCR)
- MOP054 **Racetrack Muon Ring Cooler using Dipoles and Solenoids for a Muon Collider** – X.P. Ding (UCLA), D.B. Cline (UCLA) J.S. Berg, H.G. Kirk (BNL) A.A. Garren (Particle Beam Lasers, Inc.)
- MOP055 **Robust 6D Muon Cooling in Four-sided Ring Cooler using Solenoids and Dipoles for a Muon Collider** – X.P. Ding (UCLA), D.B. Cline (UCLA) J.S. Berg, H.G. Kirk (BNL) A.A. Garren (Particle Beam Lasers, Inc.)
- MOP056 **Towards Improvement of the Performance of a Front-end of a Neutrino Factory** – D. Stratakis (UCLA) R.C. Fernow, J.C. Gallardo, H.G. Kirk, R. B. Palmer (BNL) D.V. Neuffer (Fermilab)
- MOP057 **Demonstration of High-Gradient, High-Frequency Dielectric Wakefield Acceleration Using a Micron-Scale Slab-Symmetric Structure** – D. Stratakis (UCLA), G. Andonian, H. Badakov, A. Marinelli, J.B. Rosenzweig, G. Travish, X. Wei, J. Zhou (UCLA)

- MOP058 **Particle Production in the MICE Beamline** – *L. Coney (UCR)*
- MOP059 **Tapered Guggenheim 6D Cooling Channel for the Muon Collider** – *P. Snopok (UCR), G.G. Hanson (UCR) R. B. Palmer (BNL)*
- MOP060 **Wedge Absorber Design and Simulation for MICE Step IV** – *C.T. Rogers (STFC/RAL/ASTeC) L. Coney, G.G. Hanson, P. Snopok (UCR)*
- MOP061 **Stability of the MICE Muon Beam Line** – *S.D. Blot (University of Chicago)*
- MOP062 **Usage of Li-rods for Ionization Cooling of Muons** – *A.N. Skrinsky (BINP SB RAS) T.V. Zolkin (University of Chicago)*
- MOP064 **Asymmetric Laser Radiant Cooling in Storage Rings** – *E.V. Bulyak (NSC/KIPT) J. Urakawa (KEK) F. Zimmermann (CERN)*
- MOP065 **Analytical Model for FEL-based Coherent Electron Cooling** – *G. Wang (BNL), V. Litvinenko, S.D. Webb (BNL)*
- MOP066 **Effects of e-beam Parameters on Coherent Electron Cooling** – *S.D. Webb (BNL), V. Litvinenko, G. Wang (BNL)*
- MOP067 **Vlasov and PIC Simulations of a Modulator Section for Coherent Electron Cooling** – *G.I. Bell (Tech-X), D.L. Bruhwiler, I.V. Pogorelov, B.T. Schwartz (Tech-X) Y. Hao, V. Litvinenko, G. Wang (BNL)*
- MOP068 **Numerical Calculation of Dynamical Friction in Electron Cooling Systems, including Magnetic Field Perturbations and Finite Time Effects** – *A.V. Sobol (Tech-X), G.I. Bell, D.L. Bruhwiler (Tech-X) A.V. Fedotov (BNL) V. Litvinenko (Stony Brook University)*
- MOP069 **Towards the Development of Parametric Models for a Single Pass through a Coherent Electron Cooling System** – *D.L. Bruhwiler (Tech-X), G.I. Bell, I.V. Pogorelov, B.T. Schwartz (Tech-X) Y. Hao, G. Wang (BNL) V. Litvinenko (Stony Brook University)*
- MOP070 **Fluid Simulations of GeV Scale Laser Plasma Accelerator Experiments** – *D.L. Bruhwiler (Tech-X), R. Busby, J.R. Cary, E. Cormier-Michel, B.M. Cowan (Tech-X) E. Esarey (University of Nevada, Reno) C.G.R. Geddes, C.B. Schroeder (LBNL) W. Leemans (UCB)*

## Monday, March 28

- MOP071 **Coherent Terahertz Radiation Source at FACET**  
– Z. Wu (SLAC), M.J. Hogan, S.Z. Li (SLAC)
- MOP072 **Design of On-chip Power Transport and Coupling Components for a Silicon Woodpile Accelerator** – Z. Wu (SLAC), E.R. Colby, C. McGuinness (SLAC)
- MOP073 **Coupling Macroparticles into an FEL Amplifier for Coherent Electron Cooling** – I.V. Pogorelov (Tech-X), D.L. Bruhwiler, B.T. Schwartz (Tech-X) Y. Hao, G. Wang (BNL) V. Litvinenko (Stony Brook University)
- MOP074 **Simulations of a Single-Pass through a Coherent Electron Cooler for 40 GeV/n Au+79** – B.T. Schwartz (Tech-X), D.L. Bruhwiler, I.V. Pogorelov (Tech-X) Y. Hao, V. Litvinenko, G. Wang (BNL) S. Reiche (PSI)
- MOP075 **Study of a Multi-GeV Proton FFAG for the Intensity Frontier** – L.J. Jenner (Imperial College of Science and Technology, Department of Physics) L.J. Jenner, D.V. Neuffer (Fermilab) J. Pasternak (STFC/RAL)
- MOP076 **Acceleration of Nuclei/Ions in Underdense Plasma by Counterpropagating Laser Pulses of Ultrarelativistic Intensities** – H.K. Avetissian (YSU), Kh.V. Sedrakian (YSU)
- MOP077 **Impact of Complex Target Geometries on the Divergence of Laser-Accelerated Proton Beams** – O. Deppert (TU Darmstadt), S. Busold, K. Harres, F. Nürnberg, M. Roth, G.S. Schaumann (TU Darmstadt) M. Geissel, M. Schollmeier (Sandia National Laboratories)
- MOP078 **Afterburner at FACET Using PASER** – L. Schächter (Technion) M.J. Hogan (SLAC) W.D. Kimura (STI) P. Muggli (USC)
- MOP079 **Compact Optical Injector Based PASER in a Penning Trap** – L. Schächter (Technion) W.D. Kimura (STI) P. Muggli (USC)
- MOP080 **Coherently Enhanced Radiation Reaction in Laser-Vacuum Acceleration of Electron Bunches** – P.W. Smorenburg (TUE), L.P.J. Kamp, O.J. Luiten (TUE) G. Geloni (European XFEL GmbH)
- MOP081 **Proton Acceleration by Trapping in a Laser Driven Relativistic Plasma Snow-Plow** – A. Saha (Duke ECE), T.C. Katsouleas (Duke ECE) W.B. Mori, A. Tableman, J. Tonge, F.S. Tsung (UCLA)

## Monday, March 28

- MOP082 **Characterization of Plasma Wave Excitation, Injection and Beam Loading in Laser-Plasma Accelerators** – *C. Benedetti (LBNL), E. Esarey, C.G.R. Geddes, W. Leemans, C.B. Schroeder (LBNL)*
- MOP083 **Physics Considerations for Laser-Plasma Linear Colliders** – *C.B. Schroeder (LBNL), C. Benedetti, E. Esarey, C.G.R. Geddes, W. Leemans (LBNL)*
- MOP084 **A High Repetition Plasma Mirror for Staged Electron Acceleration** – *T. Sokollik (LBNL), E.S. Evans, A.J. Gonsalves, W. Leemans, C. Lin, K. Nakamura, J. Osterhoff, S. Shiraishi, C. Toth, J. van Tilborg (LBNL)*
- MOP085 **Optimizing Electron Laser Wakefield Acceleration to Drive Free Electron Lasers** – *A.N. Simakov (LANL), W.S. Daughton, M.J. Schmitt (LANL)*
- MOP086 **Fabrication of a Prototype  $\mu$ Accelerator Platform** – *J. Zhou (UCLA), J.C. McNeur, J.B. Rosenzweig, G. Travish (UCLA) R.B. Yoder (Manhattanville College)*
- MOP087 **A Laser-Driven Linear Collider: Sample Machine Parameters and Configuration** – *E.R. Colby (SLAC), R.J. England, R.J. Noble (SLAC)*
- MOP088 **A High Transformer Ratio Plasma Wakefield Accelerator Scheme for FACET** – *R.J. England (SLAC), J.T. Frederico, M.J. Hogan (SLAC) C. Joshi (UCLA) P. Muggli (USC)*
- MOP089 **Beam Diagnostics for FACET Plasma Wakefield Experiments** – *M.J. Hogan (SLAC), A. Chaiken, S.Z. Li, M.D. Litos (SLAC) P. Muggli (USC)*

### Instrumentation and Controls

- MOP090 **Optics Tuning Knobs for FACET** – *Y. Nosochkov (SLAC), M.J. Hogan, W. Wittmer (SLAC)*

### Advanced Concepts and Future Directions

- MOP091 **Drive-witness Bunch Production for FACET Plasma Wakefield Experiments** – *M.J. Hogan (SLAC), J.T. Frederico (SLAC) P. Muggli (USC)*
- MOP092 **Design and Production of Custom PBG Fibers for Particle Acceleration** – *R.J. Noble (SLAC), J.E. Spencer (SLAC)*

### Instrumentation and Controls

- MOP093 **Precision Monitoring of Relative Beam Intensity** – *N.J. Evans (The University of Texas at Austin), S.E. Kopp (The University of Texas at Austin) P.H. Kasper, E. Prebys (Fermilab)*

## Monday, March 28

MOP094 **Advanced Beam Halo Diagnostics at the Jefferson Lab Free-Electron-Laser Facility** – *S. Zhang (JLAB), S.V. Benson, D. Douglas (JLAB) R.B. Fiorito, H.D. Zhang (UMD)*

### Advanced Concepts and Future Directions

MOP095 **Experimental Determination of Damage Threshold Characteristics of IR Compatible Optical Materials** – *K. Soong (SLAC), E.R. Colby, C. McGuinness (SLAC)*

MOP096 **Fabrication and Measurement of Guided-Wave Silica Grating Accelerator Structures** – *E.A. Peralta (Stanford University) C. McGuinness (SLAC)*

MOP097 **Modeling of Quasi-phase Matching for Laser Electron Acceleration** – *M.W. Lin (The Pennsylvania State University) I. Jovanovic (Penn State University)*

MOP098 **Periodic Dielectric Wakefield Accelerator Structure** – *G. Andonian (UCLA), J.B. Rosenzweig (UCLA)*

### Instrumentation and Controls

MOP099 **Status Report on the Real-Time Interferometer** – *G. Andonian (UCLA) U. Happek (UGA) A.Y. Murokh, A.G. Ovodenko, M. Ruelas (Radia-Beam)*

MOP100 **A Bunch Length-monitor with Sub-femtosecond Resolution** – *G. Andonian (UCLA), E. Hemsing, P. Musumeci, J.B. Rosenzweig, S. Tochitsky (UCLA)*

### Advanced Concepts and Future Directions

MOP101 **Numerical Study of Self and Controlled Injection in Multi-dimensional Wakefield Driven by Laser or Charged Particle Beams** – *A.W. Davidson (UCLA)*

MOP102 **High-Gradient High-Energy-Gain Inverse Free Electron Laser Experiment using a Helical Undulator** – *P. Musumeci (UCLA), J. Duris, R.K. Li, M.T. Westfall (UCLA)*

MOP103 **Optimum Plasma Density and High Transformer Ratio for Plasma Wakefield Excitation in the Blowout Regime** – *W. Lu (UCLA), W. An, C. Joshi, W.B. Mori (UCLA) C. Huang (LANL)*

MOP104 **Advanced Plasma Wakefield Experiments at UCLA** – *B.D. O'Shea (UCLA), A. Fukasawa, P. Niknejadi, J.B. Rosenzweig (UCLA)*



## Monday, March 28

- MOP105 **Experimental Investigations of High Frequency, High Gradient Dielectric Wakefield Acceleration** – *J.B. Rosenzweig (UCLA), G. Andonian, D. Stratakis, G. Travish, O. Williams, W. Xuan (UCLA) M.J. Hogan (SLAC) P. Muggli (USC) P. Niknejadi (University of Hawaii) V. Yakimenko (BNL)*
- MOP106 **Electron Acceleration via Positron Driven Plasma Wakefield Accelerator** – *S.F. Pinkerton (USC), P. Muggli (USC) W. An, W.B. Mori (UCLA)*
- MOP107 **Status of Dielectric-lined Two-channel Rectangular High Transformer Ratio Accelerator Structure Experiment** – *S.V. Shchelkunov (Yale University, Beam Physics Laboratory), M.A. LaPointe (Yale University, Beam Physics Laboratory) M.E. Conde, W. Gai, J.G. Power, Z.M. Yusof (ANL) J.L. Hirshfield (Omega-P, Inc.) T.C. Marshall (Columbia University) D. Mihalcea (Northern Illinois University) G.V. Sotnikov (NSC/KIPT)*
- MOP108 **Simulation Study of Proton-driven PWFA based on CERN SPS Beam** – *G.X. Xia (MPI-P), A. Caldwell (MPI-P) C. Huang (LANL)*
- MOP109 **Electron Injection Experiments in a Density Down Ramp** – *K. Koyama (University of Tokyo) H. Masuda, M. Uesaka (The University of Tokyo, Nuclear Professional School) S. Masuda (Osaka University)*
- MOP110 **Simulation Studies of Accelerating both the Target and Liner in Magneto-Inertial Fusion** – *S.V. Ryzhkov (BMSTU), A.Yu. Chirkov (BMSTU)*
- MOP111 **Ultracold Electron Source** – *G. Taban (TUE), B. Fleskens, O.J. Luiten, M.P. Reijnders, E.J.D. Vredendregt, M.J. de Loos (TUE) S.B. van der Geer (Pulsar Physics)*
- MOP112 **Study of Enhanced Transformer Ratio in a Coaxial Dielectric Wakefield Accelerator using a Profiled Drive Bunch Train** – *G.V. Sotnikov (NSC/KIPT) J.L. Hirshfield (Yale University, Physics Department) T.C. Marshall, G.V. Sotnikov*
- MOP113 **High Quality Electron Beams Generated in a Laser Wakefield Accelerator** – *W.A. Gillespie (University of Dundee) M.P. Anania, C. Aniculaesei, E. Brunetti, S. Cipiccia, B. Ersfeld, M.R. Islam, R.C. Issac, D.A. Jaroszynski, G.G. Manahan, R.P. Shanks, G.H. Welsh, S.M. Wiggins (USTRAT/SUPA) A. MacLeod (UAD)*

## Monday, March 28

- MOP114 **Optimization of Photonic Crystal Structures for Accelerators** – G.R. Werner (CIPS), C.A. Bauer (CIPS) J.R. Cary (Tech-X)
- MOP115 **Measurements of High Power Multipactor Suppression by Grooved Surfaces in Dielectric-Loaded Accelerating Structures** – S.P. Antipov (Euclid TechLabs, LLC), C.-J. Jing, A. Kanareykin, P. Schoessow (Euclid TechLabs, LLC) B. Feng (IIT) W. Gai, J.G. Power (ANL)
- MOP116 **Development of an X-Band Dielectric-Based Wakefield Power Extractor for Potential CLIC Applications** – C.-J. Jing (Euclid TechLabs, LLC), S.P. Antipov, A. Kanareykin, P. Schoessow (Euclid TechLabs, LLC) M.E. Conde, W. Gai, J.G. Power (ANL) I. Syratchev (CERN)
- MOP117 **Beam Test of a Tunable Dielectric Wakefield Accelerator** – C.-J. Jing (Euclid TechLabs, LLC), S.P. Antipov, A. Kanareykin, P. Schoessow (Euclid TechLabs, LLC) M.E. Conde, W. Gai, J.G. Power (ANL)
- MOP118 **Carbon Nanotubes as Electron Emitters for Linear Induction Accelerators** – M. Caron (CEA), L. Hourdin (CEA)
- MOP119 **THz Dielectric Wakefield Accelerating Structure** – A. Kanareykin (Euclid TechLabs, LLC), S.P. Antipov, C.-J. Jing, P. Schoessow (Euclid TechLabs, LLC) W. Gai (ANL)
- MOP120 **Efficiency Increasing of RBT Acceleration Scheme** – I.L. Sheynman (LETI) A. Kanareykin (Euclid TechLabs, LLC)
- MOP121 **Experimental Studies on Coherent Synchrotron Radiation in the Emittance Exchange Line at the Fermilab A0 Photoinjector** – J.C.T. Thangaraj (Fermilab), M.D. Church, H.T. Edwards, A.H. Lumpkin, P. Piot, J. Ruan, J.K. Santucci, Y.-E. Sun, R. Thurman-Keup (Fermilab)
- MOP122 **An Electro-Optic Detection Technique to Measure Ultrashort Electron Beams Produced in Laser Wakefield Accelerators** – M.H. Helle (Georgetown University) D.F. Gordon, D. Kaganovich, A. Ting (NRL)
- MOP123 **Colliding Pulse Injection Control in a Laser-Plasma Wakefield Accelerator** – C.G.R. Geddes (LBNL), M. Chen, E. Esarey, W. Leemans, N.H. Matlis, D.E. Mittelberger, K. Nakamura, G.R.D. Plateau, C.B. Schroeder (LBNL) D.L. Bruhwiler, J.R. Cary, E. Cormier-Michel, B.M. Cowan (Tech-X)

## Monday, March 28

- MOP124 **Separation of Injection and Acceleration in a Laser Plasma Accelerator** – *A.J. Gonsalves (LBNL), C.G.R. Geddes, C. Lin, K. Nakamura, C.B. Schroeder, S. Shiraishi, T. Sokollik, C. Toth, J. van Tilborg (LBNL) E. Esarey (University of Nevada, Reno) W. Leemans (UCB)*
- MOP125 **Wavefront Measurements of Pulse Propagation in Channel-guided Laser-Plasma Accelerators** – *S. Shiraishi (LBNL), E. Esarey, C.G.R. Geddes, A.J. Gonsalves, W. Leemans, C. Lin, K. Nakamura, J. Osterhoff, C.B. Schroeder, T. Sokollik, C. Toth, J. van Tilborg (LBNL)*
- MOP126 **Laser-driven Electron Beam Steering in Laser-produced Plasma Wakefields** – *J. van Tilborg (LBNL), M.S. Bakeman, C. Benedetti, E. Esarey, C.G.R. Geddes, A.J. Gonsalves, W. Leemans, C. Lin, K. Nakamura, C.B. Schroeder, S. Shiraishi, T. Sokollik (LBNL)*
- MOP127 **High Gradient Inverse Free Electron Laser Accelerator for Light Source Applications** – *S.G. Anderson (LLNL), G.G. Anderson, M. Betts, S.E. Fisher, D.J. Gibson, S.S.Q. Wu (LLNL) P. Musumeci, A.M. Tremaine (UCLA)*
- MOP128 **Optimized X-band Photoinjector Design for the LLNL MEGa-Ray Project** – *S.G. Anderson (LLNL), C.P.J. Barty, C.A. Ebberts, D.J. Gibson, F.V. Hartemann, T.L. Houck, R.D. Scarpetti (LLNL) C. Adolphsen, A.E. Candel, E.N. Jongewaard, C. Limborg-Deprey, T.O. Raubenheimer, S.G. Tantawi, A.E. Vlieks, F. Wang, J.W. Wang, F. Zhou (SLAC)*
- MOP129 **Full Scale Simulations of the PWFA-LC Concept using QuickPIC** – *C. Huang (LANL) W. An, W. Lu, W.B. Mori (UCLA)*
- MOP130 **New Studies of X-band Dielectric-loaded Accelerating Structures** – *S.H. Gold (NRL) W. Gai, C.-J. Jing, R. Konecny, J.G. Power (ANL) A. Kanareykin (Euclid TechLabs, LLC) A.K. Kinkead (Icarus Research, Inc.)*
- MOP131 **Plasma Bubble Dynamics and Electron Beam Stability in a Laser Wakefield Accelerator** – *D. Kaganovich (NRL), D.F. Gordon, A. Ting (NRL) M.H. Helle (Georgetown University)*
- MOP132 **Wakefield Generation in Compact Rectangular Dielectric-Loaded Structures using Flat Beams** – *D. Mihalcea (Northern Illinois University), P. Piot, M.Z. Radwan (Northern Illinois University) B.M. Cowan, P. Stoltz (Tech-X)*

## Monday, March 28

- MOP133 **Fabrication and Measurements of a Silicon Woodpile Accelerator Structure** – *C. McGuinness (SLAC), E.R. Colby, R.J. England, R.J. Noble, K. Soong, J.E. Spencer, Z. Wu (SLAC) R.L. Byer, E.A. Peralta (Stanford University)*
- MOP134 **Wakefield Analysis of Optical Photonic Band Gap Accelerators** – *J.S.T. Ng (SLAC), C.-K. Ng (SLAC)*
- MOP135 **Cathode Studies for a PBG Fiber Accelerator** – *J.E. Spencer (SLAC)*
- MOP136 **Coupler Studies for a PBG Fiber Accelerator** – *J.E. Spencer (SLAC), R.J. England, C.-K. Ng, R.J. Noble (SLAC)*
- MOP137 **Predictive Design and Interpretation of Colliding Pulse Injected Laser Wakefield Experiments** – *E. Cormier-Michel (Tech-X), D.L. Bruhwiler, B.M. Cowan, V.H. Ranjibar (Tech-X) M. Chen, E. Esarey, C.G.R. Geddes, W. Leemans, C.B. Schroeder (LBNL)*
- MOP138 **Measurement and Analysis of Lithographic Fabrication Error in Optical Photonic Crystal Accelerator Structures** – *B.M. Cowan (Tech-X) C. McGuinness (SLAC)*
- MOP139 **Simulation of Meter-Scale Laser Wakefield Stages Using an Envelope Model** – *B.M. Cowan (Tech-X), D.L. Bruhwiler, E. Cormier-Michel (Tech-X) E. Esarey, C.G.R. Geddes (LBNL)*
- MOP140 **Plasma Dynamics of Capillary Discharges for the BELLA project** – *P. Stoltz (Tech-X), D.W. Fillmore, A. Hakim, J. Loverich, S. Mahalingam (Tech-X) E. Esarey, C.G.R. Geddes, A.J. Goncalves, J.N. Johnson, W. Leemans, D.E. Mittelberger (LBNL)*
- MOP141 **Design, Fabrication and Characterization of a Micron-scale Electron Source Based on Field Enhanced Pyroelectric Crystals** – *H. Badakov (UCLA), J.M. Allen, N.S. Carranza, G. Travish, J. Zhou (UCLA) E.R. Arab (PBPL) R.B. Yoder (Manthattanville College)*
- MOP142 **Development of Picosecond CO<sub>2</sub> Laser Driver for an MeV Ion Source** – *S. Tochitsky (UCLA), D.J. Haberberger, C. Joshi (UCLA)*
- MOP143 **Enhanced Laser-Driven Ion Acceleration via Forward raman Scattering in a Ramped Gas Target** – *S. Tochitsky (UCLA), D.J. Haberberger, C. Joshi, W.B. Mori, F.S. Tsung (UCLA)*

## Monday, March 28

- MOP144 **High-gradient Two-beam Electron Accelerator Structure** – *Y. Jiang (Yale University, Beam Physics Laboratory) J.L. Hirshfield (Yale University, Physics Department) S. Kazakov, S.V. Kuzikov (Omega-P, Inc.)*
- MOP145 **Physics Design of the Project X Linac** – *N. Solyak (Fermilab), J.S. Kerby, V.A. Lebedev, S. Nagaitsev, J.-F. Ostiguy, A. Vostrikov, V.P. Yakovlev (Fermilab) A. Saini (University of Delhi)*
- MOP146 **Synchro-Betatron Coupling Related to Transverse Laser Cooling** – *K. Jimbo (Kyoto IAE) T. Hiromasa, M. Nakao, A. Noda, H. Souda, H. Tongu (Kyoto ICR)*
- MOP147 **Experimental Study of Magnetically Confined Hollow Electron Beams in the Tevatron as Collimators for Intense High-Energy Hadron Beams** – *G. Stancari (Fermilab), A.I. Drozhdin, G.F. Kuznetsov, V.D. Shiltsev, D.A. Still, A. Valishev, L.G. Vorobiev (Fermilab) R.W. Assmann, R. Bruce (CERN)*
- MOP148 **Comprehensive Optimization Platform for Accelerator and Beam Transport System Design** – *Y.-C. Chao (TRIUMF), C. Gong (TRIUMF)*

### Instrumentation and Controls

- MOP149 **A Betatron Matching Scheme Using Periodic Lattices** – *Y.-C. Chao (TRIUMF)*
- MOP150 **Tracking of the MICE Muon Beam using Scintillating Fibre Trackers** – *D. Adey (University of Warwick)*

### Advanced Concepts and Future Directions

- MOP151 **Beam Particle Weighting using Approximate Voronoi Diagrams** – *D. Adey (University of Warwick)*
- MOP152 **Particle Tracking in Matter-Dominated Beam Lines** – *T.J. Roberts (Muons, Inc), K.B. Beard (Muons, Inc) S. Ahmed (JLAB) D.M. Kaplan (Illinois Institute of Technology)*
- MOP153 **High Efficiency Laser Ion Acceleration in Low Density Plasmas** – *E. d’Humières (CELIA), V. Tikhonchuk (CELIA)*
- MOP154 **Prospects for Proton Accelerator Driven by the Radiation Pressure from a sub-PW CO<sub>2</sub> Laser** – *M.N. Polyanskiy (BNL), I. Pogorelsky, V. Yaki-menko (BNL)*

## Monday, March 28

- MOP155 **Diamond Amplified Photo-cathode Experiment Progress** – *E. Wang (PKU/IHIP) I. Ben-Zvi, A. Burrill, X. Chang, J. Kewisch, E.M. Muller, T. Rao, J. Smedley, Q. Wu (BNL) T. Xin (Stony Brook University)*
- MOP156 **Status of the Photo-cathode SRF Polarized Gun Design** – *J.H. Park (AES), H. Bluem, D. Holmes, T. Schultheiss, A.M.M. Todd (AES) I. Ben-Zvi, J. Kewisch, E. Wang (BNL)*
- MOP157 **Polarized SRF Electron Gun Test** – *E. Wang (BNL), I. Ben-Zvi, A. Burrill, J. Kewisch, T. Rao, R.J. Todd, Q. Wu (BNL) D. Holmes (AES)*
- MOP158 **Numerical Study of Plasma Wakefields excited by a Train of Electron Bunches** – *Y. Fang (USC), P. Muggli (USC) C. Huang (LANL) W.B. Mori (UCLA)*
- MOP159 **Ionization-induced Trapping and Synchrotron Radiation Production in Laser-plasma Accelerators** – *M. Chen (LBNL), E. Esarey, C.G.R. Geddes, W. Leemans, C.B. Schroeder (LBNL)*
- MOP160 **Microwave Undulator for Storage Ring** – *M. Yeddulla (BNL) J. Neilson, M. Shumail, S.G. Tantawi (SLAC)*
- MOP161 **Undulator-based Laser Wakefield Accelerator Electron Beam Diagnostic** – *M.S. Bakeman (LBNL), W. Leemans, K. Nakamura, K.E. Robinson, C.B. Schroeder, C. Toth, J. van Tilborg (LBNL) F.J. Gruener, R. Weingartner (LMU)*
- MOP162 **Betatron Radiation from an Off-axis Electron Beam in the Plasma Wakefield Accelerator** – *Y. Shi (USC), O. Chang, P. Muggli (USC) C. Huang, W.B. Mori (UCLA)*
- MOP163 **Optimization of Extinction Efficiency in the 8-GeV Mu2e Beam Line** – *I.L. Rakhno (Fermilab), A.I. Drozhdin, C. Johnstone, E. Prebys (Fermilab)*

### Instrumentation and Controls

- MOP164 **Blind Equalization Technique for CMA to Minimize the Sever Channel Effects** – *W. Elnahal (Cairo University)*
- MOP165 **Bringing Accelerator Models to the Control System Studio** – *N. Malitsky (BNL) C. Xiaomeng (Stony Brook University)*
- MOP166 **Commissioning of a BPM system for the LNLS Booster to Storage Ring Transfer Line** – *F.H. Cardoso (LNLS)*
- MOP167 **CUBES** – *I.D. Valova (ICSR)*

- MOP168 **Transverse Phase Space Tomography in TRIUMF Injection Beamline** – *Y.-N. Rao (TRIUMF), R.A. Baartman (TRIUMF)*
- MOP169 **Optical Beam Diagnostics at ELSA** – *S. Zander (ELSA), W. Hillert, S. Patzelt (ELSA)*
- MOP170 **Combining Multiturn and Closed-Orbit Methods for Model-Independent and Fast Determination of Optical Functions in Storage Rings** – *B. Riemann (DELTA), P. Grete, H. Huck, A. Nowaczyk, T. Weis (DELTA)*
- MOP171 **Beam Emittance Measurement at the HIT Test Bench** – *M.B. Ripert (HIT), A. Buechel, A. Peters, J. Schreiner, T.W. Winkelmann (HIT) S. Das (MSL)*
- MOP172 **New Measurements of Proton Beam Extinction at J-PARC** – *K. Yoshimura (KEK), Y. Hori, Y. Igarashi, S. Mihara, H. Nishiguchi, Y. Sato, M. Shimamoto, Y. Takeda, M. Uota (KEK) M. Aoki, S. Hikida, H. Nakai (Osaka University) Y. Hashimoto (J-PARC, KEK & JAEA)*
- MOP173 **Technique for a High Precision Betatron Tune Measurement in a Rapid Cycling Synchrotron** – *H. Harada (JAEA/J-PARC), N. Hayashi (JAEA/J-PARC)*
- MOP174 **The Study and Implementation of Signal Processing Algorithm for Digital Beam Position Monitor** – *L.W. Lai (SSRF), Y.B. Leng (SSRF)*
- MOP175 **EPICS IOC of Oscilloscope for Beam Diagnostics System** – *N. Zhang (SSRF)*
- MOP176 **Cavity Beam Quadrupole Moment Monitor at HLS** – *Q. Luo (USTC/NSRL), Q.K. Jia, B. Sun, Z.R. Zhou (USTC/NSRL)*
- MOP177 **Cold Test of S-band Re-entrant Cavity BPM for HLS** – *Q. Luo (USTC/NSRL), Q.K. Jia, B. Sun, Z.R. Zhou (USTC/NSRL)*
- MOP178 **Photon Beam Position Monitor Based on Position-sensitive Detector for HLS** – *Y.Y. Xiao (USTC/NSRL), L.M. Gu, P. Lu, B. Sun, L.L. Tang, J.G. Wang (USTC/NSRL)*
- MOP179 **A Numerical Study of X-ray Imaging of Electron Beam with Two Zone Plates in PLS** – *I.S. Ko (POSTECH) J.Y. Huang, Y.W. Parc (PAL)*
- MOP180 **Activation Method for Beam Diagnostic and Measuring Stopping Ranges of Ions** – *A. Fertman (ITEP), A. Golubev, A.V. Kantsyrev, A. Khudomyasov, N. Markov, V.I. Turtikov (ITEP) A. Fedenev, B. Ionita, J. Wieser (GSI Plasma)*

## Monday, March 28

*D.H.H. Hoffmann, J. Ling, S. Udrea (TU Darmstadt) A. Hug, D. Varentsov, K. Weyrich (GSI) V. Mintsev, D. Nikolaev, N. Shilkin, A. Ternovoy (IPCP) A. Ulrich (TUM/Physik) Y.T. Zhao (IMP)*

- MOP181 **Tune Measurement System for Electron and Positron Storage Rings and Accelerators** – *G.V. Karpov (BINP SB RAS), E.A. Bekhtenev, V.P. Cherepanov, A.S. Medvedko, E. Shubin (BINP SB RAS)*
- MOP182 **Measurement of the Energy Dependence of Touschek Electron Counting Rate** – *I.B. Nikolaev (BINP SB RAS), V.E. Blinov, V.A. Kiselev, S.A. Nikitin, V.V. Smaluk (BINP SB RAS)*
- MOP183 **First Measurements of a New Beam Position Processor on Real Beam at Taiwan Light Source** – *P. Leban (I-Tech), A. Kosicek (I-Tech) K.T. Hsu (NSRRC)*
- MOP184 **Beam Instrumentation for the European Spallation Source** – *A. Jansson (ESS), L. Tchelidze (ESS)*
- MOP185 **Development of Longitudinal Beam Profile Diagnostics within DITANET** – *C.P. Welsch (Cockcroft Institute) C.P. Welsch*
- MOP186 **Low Energy Beam Diagnostics Developments within DITANET** – *C.P. Welsch (Cockcroft Institute) C.P. Welsch*
- MOP187 **Longitudinal Beam Profile Diagnostics at CTF3 based on Coherent Diffraction Radiation** – *K. Lekomtsev (JAI), G.A. Blair, G.E. Boorman, V. Karataev, M. Micheler (JAI) R. Corsini, T. Lefevre (CERN)*
- MOP188 **A Design Study for Photon Diagnostics for the APS Storage Ring Short Pulse X-ray Source** – *K.W. Schlax (ANL), G. Decker, P.K. Den Hartog, S.-H. Lee, B.X. Yang (ANL)*
- MOP189 **A Design Study for Photon Diagnostics for the APS Storage Ring Short Pulse X-ray Source** – *B.X. Yang (ANL), G. Decker, P.K. Den Hartog, S.-H. Lee (ANL)*
- MOP190 **Precision, Absolute Proton Beam Polarization Measurements at 200 MeV** – *G. Atoian (BNL), A. Zelenski (BNL) A. Bogdanov, M.F. Runtsch (MEPhI) E.J. Stephenson (IUCF)*
- MOP191 **RHIC Spin Flipper Commissioning Results** – *M. Bai (BNL), W.C. Dawson, Y. Makdisi, P. Oddo, C. Pai, P.H. Pile, T. Roser (BNL) F. Meot (CEA)*



## Monday, March 28

- MOP192 **NSLS-II BPM System Protection from Rogue Mode Coupling** – *A. Blednykh (BNL), B. Bacha, A. Borrelli, M.J. Ferreira, C. Hetzel, H.-C. Hseuh, B.N. Kosciuk, S. Krinsky, O. Singh, K. Vetter (BNL)*
- MOP193 **Design of Visible Diagnostic Beamline for NSLS2 Storage Ring** – *W.X. Cheng (BNL), H.C. Fernandes, H.-C. Hseuh, B.N. Kosciuk, S. Krinsky, O. Singh (BNL)*
- MOP194 **A Laser-Wire Beam-Energy and Beam-Profile Monitor at the BNL Linac** – *R. Connolly (BNL), L. DeSanto, C. Degen, W. Meng, R.J. Michnoff, M.G. Minty, S.K. Nayak, D. Raparia, T. Russo (BNL)*
- MOP195 **Moving toward Open Source Hardware Development** – *J.H. DeLong (BNL)*
- MOP196 **A Modular Architecture for Accelerator Instrumentation** – *J.H. DeLong (BNL)*
- MOP197 **Motion Control for RHIC Stochastic Cooling** – *D.M. Gassner (BNL), S. Bellavia, J.M. Brennan, J. Brodowski, L. DeSanto, W. Fu, C.J. Liaw, R.H. Olsen, A. Zaltsman (BNL)*
- MOP198 **BPM Inputs to Physics Applications at NSLS-II** – *Y. Hu (BNL), J.H. DeLong, K. Ha, J. Mead, K. Vetter (BNL)*
- MOP199 **X-ray Diagnostics Beamlines for NSLS-II** – *P. Ilinski (BNL)*
- MOP200 **Optimization of Blade X-ray Beam Position Monitors for NSLS-II Beamlines** – *P. Ilinski (BNL)*
- MOP201 **Protection of NSLS-II Components from Synchrotron Radiation** – *P. Ilinski (BNL), O.V. Chubar, V. Ravindranath (BNL)*
- MOP202 **Simulations of the LHC High Luminosity Monitors at Energies from 3.5 TeV to 7.0 TeV** – *R. Miyamoto (BNL) P. Humphreys, H.S. Matis, A. Ratti, W.C. Turner (LBNL) J. Stiller (Heidelberg University)*
- MOP203 **RHIC Spin Flipper AC Dipole Controller** – *P. Oddo (BNL), M. Bai, W.C. Dawson, D.M. Gassner, M. Harvey, T. Hayes, K. Mernick, M.G. Minty, T. Roser, F. Severino, K. Smith (BNL)*
- MOP204 **Evaluation of Digitizers for Monitoring Current in the NSLS-II Storage Ring** – *I. Pinayev (BNL), Y. Hu (BNL)*

## Monday, March 28

- MOP205 **NSLS-II Injection Straight Diagnostics** – *I. Pinayev (BNL), A. Blednykh, M.J. Ferreira, R.P. Fliller, B.N. Kosciuk, T.V. Shaftan, G.M. Wang (BNL)*
- MOP206 **Calibration and Performance of a Secondary Emission Chamber as a Beam Intensity Monitor** – *M. Sivertz (BNL), I.-H. Chiang, A. Rusek (BNL)*
- MOP207 **Diamond X-ray Beam Position Monitors** – *J. Smedley (BNL), A. Heroux, J.W. Keister (BNL) K. Attenkofer (ANL) J. Bohon (Case Western Reserve University, Center for Synchrotron Biosciences) J. Distel (LANL) E.M. Muller (Stony Brook University)*
- MOP208 **Baseline Suppression Problems for High Precision Measurements Using Optical Beam Profile Monitors.** – *P. Thieberger (BNL), D.M. Gassner, M.G. Minty (BNL)*
- MOP209 **Proposed Electron Halo Detector System as One of the Beam Overlap Diagnostic Tools for the New RHIC Electron Lens.** – *P. Thieberger (BNL), J.G. Alessi, E.N. Beebe, W. Fischer, D.M. Gassner, X. Gu, R.C. Gupta, J. Hock, A.K. Jain, R.F. Lambiase, Y. Luo, M.G. Minty, C. Montag, M. Okamura, A.I. Pikin, D. Raparia, Y. Tan, J.E. Tuozzolo (BNL)*
- MOP210 **Residual Gas Fluorescence Monitor at RHIC** – *T. Tsang (BNL), D.M. Gassner (BNL)*
- MOP211 **NSLS-II RF Beam Position Monitor** – *K. Vetter (BNL), J.H. DeLong, A.J. Della Penna, K.M. Ha, B.N. Kosciuk, J. Mead, I. Pinayev, O. Singh, Y. Tian (BNL)*
- MOP212 **Quadrupole Beam-Based Alignment in the RHIC Interaction Regions** – *J.M. Ziegler (BNL), T. Satogata (BNL)*
- MOP213 **Synchrotron Light Monitor Upgrades for the Cornell Electron-Positron Storage Ring Test Accelerator** – *R. Holtzapple (CalPoly) J.V. Conway, D.L. Hartill, V. Medjidzade, M.A. Palmer, N.T. Rider, C.R. Strohman (CLASSE)*
- MOP214 **Methods for Quantitative Interpretation of Retarding Field Analyzer Data** – *J.R. Calvey (CLASSE), J.A. Crittenden, G. Dugan, J.A. Livezey, J. Makita, M.A. Palmer (CLASSE) K.C. Harkay (ANL) M. Venturini (LBNL)*
- MOP215 **Digital Tune Tracker for CESR** – *R.E. Meller (CLASSE), M.A. Palmer (CLASSE)*

## Monday, March 28

- MOP216 **CesrTA x-Ray Beam Size Monitor Operation** – *D.P. Peterson (CLASSE), J.P. Alexander, A. Lyndaker, M.A. Palmer, M.C. Rendina, N.T. Rider, R.D. Seeley (CLASSE) J.W. Flanagan (KEK)*
- MOP217 **High Sensitivity Beam Position Monitor for 1300 MHz Cryomodules** – *N. Barov (Far-Tech, Inc.), J.S. Kim, D.J. Newsham (Far-Tech, Inc.)*
- MOP218 **High Level Software for 4.8 Ghz Schottky System** – *J. Cai (Fermilab), A. Jansson, E.S.M. McCrory, R.J. Pasquinelli (Fermilab) O.R. Jones (CERN)*
- MOP219 **Initial Beam-Profiling Tests with the NML Prototype Station at the Fermilab A0 Photoinjector** – *A.H. Lumpkin (Fermilab), M.D. Church, R.H. Flora, J. Ruan, J.K. Santucci, V.E. Scarpine, Y.-E. Sun, R. Thurman-Keup, M. Wendt (Fermilab)*
- MOP220 **Feasibility of Near-field ODR Beam-size Monitoring at 25 GeV at FACET** – *A.H. Lumpkin (Fermilab) M.J. Hogan (SLAC) P. Muggli (USC) C. Yao (ANL)*
- MOP221 **An Application for Tunes and Coupling Evaluation from Turn-by-turn Data at the Fermilab Booster** – *W.L. Marsh (Fermilab), Y. Alexahin, E. Gianfelice-Wendt (Fermilab)*
- MOP222 **Operational use of Ionization Profile Monitors in the Fermilab Main Injector** – *D.K. Morris (Fermilab), P. Adamson, D. Capista, I. Kourbanis, T. Meyer, K. Seiya, D. Slimmer, M.-J. Yang, J.R. Zengel (Fermilab)*
- MOP223 **Commissioning of a Streak Camera for Laser Characterization at A0PI** – *J. Ruan (Fermilab), A.H. Lumpkin (Fermilab)*
- MOP224 **A Data Acquisition System for Longitudinal Beam Properties in a Rapid Cycling Synchrotron** – *J. Steimel (Fermilab), C.-Y. Tan (Fermilab)*
- MOP225 **Initial Characterization of a Commercial Electron Gun for Profiling High Intensity Proton Beams in Project X** – *R. Thurman-Keup (Fermilab), A.S. Johnson, D.H. Zhang (Fermilab) W. Blokland, T.V. Gorlov (ORNL)*
- MOP226 **Transverse Emittance and Phase Space Program Developed for Use at the Fermilab A0 Photoinjector** – *R. Thurman-Keup (Fermilab), A.S. Johnson, A.H. Lumpkin, J. Ruan (Fermilab)*
- MOP227 **Beam Diagnostics and Instrumentation of the ALPHA** – *T.H. Luo (IUCF)*

## Monday, March 28

- MOP228 **TE Wave Measurements of the Electron Cloud in a Dipole Magnetic Field** – *S. De Santis (LBNL), K.C. Hammond (Harvard University), J. Joseph, J.A. Livezey, J.P. Sikora, K.G. Sonnad (CLASSE)*
- MOP229 **Electron Bunch Characterization using Temporal Electric-field Cross-correlation** – *N.H. Matlis (LBNL), W. Leemans, G.R.D. Plateau, J. van Tilborg (LBNL)*
- MOP230 **Precise Charge Measurement for Laser Plasma Accelerators** – *K. Nakamura (LBNL), W.E. Byrne, R.J. Donahue, A.J. Gonsalves, C. Lin, D.E. Rodgers, A.R. Smith, T. Sokollik, J. van Tilborg (LBNL), W. Leemans (UCB), S. Shiraishi (Enrico Fermi Institute, University of Chicago)*
- MOP231 **Beam Flux Measurement at NDCX-I Using Gold-melting Calorimetry Technique** – *P.N. Ni (LBNL), F.M. Bieniosek, S.M. Lidia (LBNL), J.R. Welch (Cornell University)*
- MOP232 **LANSCE-R Wire-Scanner Analog Frontend Electronics (AFE)** – *M.E. Gruchalla (LANL), P. Chacon, J.D. Gilpatrick, D. Martinez, J.D. Sedillo (LANL)*
- MOP233 **LANSCE-R Wire-Scanner System** – *M.E. Gruchalla (LANL), J.D. Gilpatrick, D. Martinez, J.D. Sedillo (LANL)*
- MOP234 **Beam Position and Phase Monitors for the LANSCE Linac** – *R.C. McCrady (LANL)*
- MOP235 **LANSCE Wire Scanning Diagnostics Device Prototype** – *S. Rodriguez Esparza (LANL)*
- MOP236 **First Test Results of the New LANSCE Wire Scanner** – *J.D. Sedillo (LANL), J.D. Gilpatrick (LANL), M.E. Gruchalla (URS)*
- MOP237 **Large Dynamic Range Beam Profile Measurements at SNS, Challenges and Achievements** – *A.V. Aleksandrov (ORNL)*
- MOP238 **Laser Compton Proton Polarimetry Revisited** – *A.N. Stillman (Private Address)*
- MOP239 **Cost-effective Profile Monitors and other Beam Instrumentation** – *M. Ruelas (RadiaBeam), R.B. Agustsson, I. Bacchus, A.Y. Murokh, R. Tikhoplav (RadiaBeam)*
- MOP240 **Optical Streaking for Femtosecond Electron Bunch Measurements** – *Y.T. Ding (SLAC), K.L.F. Bane, Z. Huang (SLAC)*
- MOP241 **The Bunch Length Monitor and Optical Transition Radiation Monitor for FACET** – *S.Z. Li (SLAC)*

## Monday, March 28

- MOP242 **Evaluation of Temporal Diagnostic Techniques for Two-bunch FACET Beam** – *M.D. Litos (SLAC), M.R. Bionta, V.A. Dolgashev, P. Emma, R.J. England, J.C. Frisch, D. Fritz, A. Gilevich, P. Hering, M.J. Hogan (SLAC)*
- MOP243 **Design of a Compact, High-Resolution Analyzer for Longitudinal Energy Studies in the University of Maryland Electron Ring** – *E.C. Voorhies (UMD), I. Haber, R.A. Kishek, T.W. Koeth, P.G. O'Shea (UMD)*
- MOP244 **Virtualization Technology Applied to HLSII Control System** – *G. Liu (USTC/NSRL), X. Bao, C. Li, J.G. Wang, K. Xuan (USTC/NSRL)*
- MOP245 **SRF Electronic Controller Devices for TPS of SRF** – *F.-T. Chung (NSRRC)*
- MOP246 **Turkish Accelerator Center Distributed Control and Computing Systems** – *T. Soygul (Ankara University, Faculty of Engineering), A. Aksoy, O. Yavas (Ankara University, Faculty of Engineering)*
- MOP247 **Quick Setup of Unit Test For Accelerator Controls System** – *W. Fu (BNL), T. D'Ottavio, D.M. Gassner, J. Morris, S. Nemesure (BNL)*
- MOP248 **Automating Power Supply Checkout** – *J.S. Laster (BNL), D. Bruno, T. D'Ottavio, J. Drozd, G.J. Marr, C. Mi (BNL)*
- MOP249 **Improved Alarm Tracking for Better Accountability** – *S. Nemesure (BNL), T. D'Ottavio, L.R. Hammons, P.F. Ingrassia, N.A. Kling, G.J. Marr, T.C. Shrey (BNL)*
- MOP250 **NSLS-II High Level Application Infrastructure and Client API Design** – *G.B. Shen (BNL), L. Yang (BNL)*
- MOP251 **IRMIS Database Design for NSLS-II Physics Applications** – *G.B. Shen (BNL), D. Dohan (BNL)*
- MOP252 **Server Development for NSLS-II Physics Applications and Performance Analysis** – *G.B. Shen (BNL), M.R. Kraimer (BNL)*
- MOP253 **A Flexible Interlock System for a Test Facility with Multiple Test Schemes and a Single RF Source** – *E. Peoples-Evans (Fermilab), D. McDowell, P.S. Prieto, J. Steimel (Fermilab)*
- MOP254 **Virtualization for the ALS High Level Control System** – *C.M. Ikami (LBNL), H. Nishimura, G.J. Portmann, CA. Timossi (LBNL)*

## Monday, March 28

- MOP255 **Completion of a New High Level Control System for the ALS** – G.J. Portmann (LBNL), C.M. Ikami, H. Mahic, H. Nishimura, P. Pace, CA. Timossi (LBNL)
- MOP256 **Upgrading the Data Acquisition and Control System of LANSCE LINAC** – D. Baros (LANL)
- MOP257 **High Power RF Distribution and Control for Multi-Cavity Cryomodule Testing** – Y.W. Kang (ORNL), M.T. Crofford, X. Geng, S.-H. Kim, S.W. Lee, C.L. Phibbs, W.H. Strong (ORNL)
- MOP258 **Linac Energy Management Service** – P. Chu (SLAC), P. Natampalli, D. Rogind (SLAC)
- MOP259 **A Platform for Both Online and Offline Models** – P. Chu (SLAC) G.B. Shen (BNL)
- MOP260 **An Object Oriented Framework of EPICS for MicroTCA Based Control System** – Z. Geng (SLAC)
- MOP261 **The CEBAF Element Database** – T. L. Larrieu (JLAB), M.E. Joyce, C.J. Slominski (JLAB)
- MOP262 **The LNL5 Transverse Bunch-by-bunch Feedback System** – L. Sanfelici (LNL5), F.H. Cardoso, L. Liu, S.R. Marques, X.R. Resende (LNL5)
- MOP263 **Fast Orbit Feedback System for the LNL5 Storage Ring** – D.O. Tavares (LNL5), D.D. Felix Ferreira, S.R. Marques, L. Sanfelici (LNL5)
- MOP264 **Status of the HLS Bunch by Bunch Feedback System** – Z.R. Zhou (USTC/NSRL), W.B. Li, Q. Luo, B. Sun, J.H. Wang (USTC/NSRL)
- MOP265 **The FONT5 prototype ILC Intra-train Feedback System at ATF2** – P. Burrows (JAI)
- MOP266 **Stripline Kicker Design for NSLS2 Storage Ring** – W.X. Cheng (BNL), A. Blednykh, B.N. Kosciuk, S. Krinsky, O. Singh (BNL)
- MOP267 **Fast BPM Data Distribution for Global Orbit Feedback Using Commercial Gigabit Ethernet Technology** – R.L. Hulsart (BNL), P. Cerniglia, R.J. Michnoff, M.G. Minty (BNL)
- MOP268 **RHIC 10 Hz Global Orbit Feedback System** – R.J. Michnoff (BNL), L. Arnold, C. Carboni, P. Cerniglia, A.J. Curcio, L. DeSanto, C. Folz, C. Ho, L.T. Hoff, R.L. Hulsart, A.K. Jain, R. Karl, C. Liu, Y. Luo, W.W. MacKay, G.J. Mahler, W. Meng, K. Mernick, M.G. Minty, C. Montag, R.H. Olsen, J. Piacentino, P. Popken, R. Przybylinski, V. Ptitsyn, J. Ritter, R.F. Schoenfeld, P. Thieberger, J.E. Tuozolo, A. Weston, J. White, P. Ziminski, P. Zimmerman (BNL)

## Monday, March 28

- MOP269 **Design of Longitudinal Feedback Kicker for HLS Storage Ring** – *W. Xu (USTC/NSRL), D.H. He (USTC/NSRL) W. Wu, Y.K. Wu (FEL/Duke University)*
- MOP270 **Radiation Shielding Design for Microelectronic Devices operating in the Vicinity of FLASH** – *B. Mukherjee (Westdeutsches Protonentherapiezentrum), J. Lambert (Westdeutsches Protonentherapiezentrum) E. Negodin, S. Ruzin (DESY) J. Rossbach, J. Rönsch-Schulenburg, R. Tarkeshian (Uni HH)*
- MOP271 **A Hybrid Shielding Calculation Method for Proton Therapy Treatment Rooms** – *B. Mukherjee (Westdeutsches Protonentherapiezentrum), J. Farr, R. Hentschel, J. Lambert (Westdeutsches Protonentherapiezentrum) E. Negodin (DESY)*
- MOP272 **Radiation level in the SSRF during the Normal Operation** – *X.J. Xu (SINAP), W. Shen, X. Xia, D. Zhang, J.Z. Zhou (SINAP)*
- MOP273 **Calibration and Simulation of the LCLS Undulator Beam Loss Monitors Using APS Accelerators** – *J.C. Dooling (ANL), W. Berg, B.X. Yang (ANL) A.S. Fisher, H.-D. Nuhn, M. Santana-Leitner (SLAC)*
- MOP274 **Beam Loss Monitors for NSLS-II Storage Ring** – *S.L. Kramer (BNL), P. Cameron (BNL)*
- MOP275 **Beam Loss Control for the NSLS-II Storage Ring** – *S.L. Kramer (BNL), J. Choi (BNL)*
- MOP276 **An Efficient Approach for Studying Top-off Safety in Storage Rings** – *Y. Li (BNL), S. Krinsky, L. Yang (BNL)*
- MOP277 **The Machine Protection System for the R&D Energy Recovery LINAC** – *Z. Altinbas (BNL), J.P. Jamilkowski, D. Kayran, R.C. Lee, B. Oerter (BNL)*
- MOP278 **Ultra Precision Timing System for the Laser Megajoule** – *V. Drouet (CEA)*
- MOP279 **Synchronize a Laser to FEL e-Beam for LCLS** – *G. Huang (TUB) R.B. Wilcox (LBNL)*
- MOP280 **PLS-II Control And Timing System** – *J.W. Lee (PAL), J.M. Kim, K.R. Kim, E.H. Lee, S.H. Nam, B.R. Park, J.C. Yoon (PAL)*
- MOP281 **ADC Clocking Formats and Matching Networks** – *A.J. Della Penna (BNL)*

## Monday, March 28

- MOP282 **A Deterministic, Gigabit Serial Timing, Synchronization and Data Link for the RHIC LLRF** – *T. Hayes (BNL), F. Severino, K. Smith (BNL)*
- MOP283 **A Hardware Overview of the RHIC LLRF Platform** – *T. Hayes (BNL), K. Smith (BNL)*
- MOP284 **A High Performance DAC / DDS Daughter Module for the RHIC LLRF Platform** – *T. Hayes (BNL), M. Harvey, G. Narayan, F. Severino, K. Smith, S. Yuan (BNL)*
- MOP285 **Synchronization and Jitter Studies of a Titanium-sapphire Laser at the A0 Photoinjector** – *T.J. Maxwell (Northern Illinois University), P. Piot (Northern Illinois University)*
- MOP286 **Providing Stabilized Beam Timing in the LCLS Experimental Areas** – *M. Petree (SLAC), J.C. Frisch, T.J. Smith (SLAC) J. Gronberg (LLNL)*
- MOP287 **Evaluating the Resolution of Electro-Optic Based Femtosecond Timestamping in an Rf Photoinjector** – *C.M. Soby (UCLA), R.K. Li, J.T. Moody, P. Musumeci (UCLA)*
- MOP288 **Progress Report on Development of the RING cavity for Laser-based Charge Stripping of Hydrogen Ions** – *R. Tikhoplav (RadiaBeam) I. Jovanovic (Penn State University)*
- MOP289 **Applications of Lasers in Accelerator Physics at SSRL** – *D.L. Robinson (STAR) W.J. Corbett (SLAC)*
- MOP290 **Self Excited Operation for a 1.3 GHz 5-cell Superconducting Cavity** – *K. Fong (TRIUMF), M.P. Laverty, Q. Zheng (TRIUMF) E.P. Chojnacki, G.H. Hoffstaetter, D. Meidlinger, S.P. Wang (CLASSE)*
- MOP291 **The LLRF System Performance Diagnostic and Cavities Parameters Monitoring at FLASH** – *W. Cichalewski (TUL-DMCS), W. Jalmuzna, A. Napieralski (TUL-DMCS)*
- MOP292 **Performance of ATCA-based LLRF Control System** – *D.R. Makowski (TUL-DMCS), G.W. Jablonski, W. Jalmuzna, A. Napieralski, A. Piotrowski, P. Predki (TUL-DMCS) K. Czuba (Warsaw University of Technology, Institute of Electronic Systems) M.K. Grecki, T. Jezynski, W. Koprek, F. Ludwig, H. Schlarb (DESY)*
- MOP293 **Performance of Analog Signal Distribution in the ATCA Based LLRF System** – *K. Czuba (Warsaw University of Technology, Institute of Electronic Systems) W. Jalmuzna, D.R. Makowski (TUL-DMCS) T. Jezynski, F. Ludwig (DESY)*



## Monday, March 28

- MOP294 **Thomson's Digital LLRF Systems** – *M. Frei (Thomson Broadcast), M. Casty, M. Iten, J. Troxler (Thomson Broadcast)*
- MOP295 **The Low-Level Radio Frequency System for the Superconducting Cavities of National Synchrotron Light Source II Storage Ring** – *H. Ma (BNL), J. Cupolo, B. Holub, Y. Kawashima, J. Oliva, J. Rose, R. Sikora, M. Yeddulla (BNL)*
- MOP296 **Embedded System Architecture and Capabilities of the RHIC LLRF Platform** – *F. Severino (BNL), M. Harvey, T. Hayes, L.T. Hoff, R.C. Lee, A. Marusic, P. Oddo, K. Smith, K.L. Unger (BNL)*
- MOP297 **A Bunch to Bucket Phase Detector for the RHIC LLRF Upgrade Platform** – *K. Smith (BNL), M. Harvey, T. Hayes, G. Narayan, S. Polizzo, F. Severino (BNL)*
- MOP298 **Commissioning Results from the Recently Upgraded RHIC LLRF System** – *K. Smith (BNL), M. Harvey, T. Hayes, G. Narayan, F. Severino, S. Yuan, A. Zaltsman (BNL)*
- MOP299 **Commissioning and Performance of the BNL EBIS LLRF System** – *S. Yuan (BNL), M. Harvey, T. Hayes, G. Narayan, F. Severino, K. Smith, A. Zaltsman (BNL)*
- MOP300 **The Spallation Neutron Source Eight Channel Pulsed Power Meter** – *M.T. Crofford (ORNL), X. Geng, T.W. Hardek (ORNL) T.L. Davidson (ORNL RAD)*
- MOP303 **Barcode Detection System for the EMBL Beamlines at PETRAIII Synchrotron** – *M. DiCastro (EMBL)*
- MOP304 **Development of an X-Ray Beam Size Monitor with Single Pass Measurement Capability for CEsrTA** – *N.T. Rider (CLASSE), J.P. Alexander, M.G. Billing, J. Dobbins, R.E. Meller, M.A. Palmer, D.P. Peterson, C.R. Strohman (CLASSE) J.W. Flanagan (KEK)*

## Tuesday, March 29

29-Mar-11 08:30 – 17:30

Westside Ballroom

### Tuesday Posters

#### Accelerator Technology

- TUP001 **Study of Transient Beam Loading Effects in Harmonic RF Systems for HLS** – *Y. Zhao (USTC/NSRL)*
- TUP002 **Study of Robinson Instabilities with a Higher-Harmonic Cavity for HLS Phase II Project** – *Y. Zhao (USTC/NSRL)*
- TUP003 **Beam Stop of Spiral2 Facility: Activation and Residual Dose Rate Calculations** – *A. Mayoral (UNED), M. Garcia, D. López, F. Ogando, J. Sanz, P. Sauvan (UNED)*
- TUP004 **GEANT4 Modelling of Heat Deposition into the ISIS Muon Target** – *A. Bungau (University of Huddersfield), R. Cywinski (University of Huddersfield) C. Bungau (Manchester University) P.J.C. King, J.S. Lord (STFC/RAL)*
- TUP005 **Comparison of Back-scattering Properties of Electron Emission Materials** – *Z. Insepov (ANL) V. Ivanov (Muons, Inc)*
- TUP006 **FLUGG Monte Carlo Simulations of the NuMI Beamline for NOvA** – *M.A. Martens (Fermilab) L. Corwin (Indiana University) V. Khagjika (Università di Pisa)*
- TUP007 **Medium Energy Target for the NOvA experiment at NuMI** – *M.A. Martens (Fermilab), K. Anderson, J. Hysten, M.W. McGee (Fermilab) V. Ferapontov, V.I. Garkusha, FN. Novoskoltsev, A. Ryabov, T. Ryabov, V. Zarucheisky (IHEP Protvino)*
- TUP008 **Update on Multipactor in Coaxial Waveguides using CST Particle Studio** – *G.V. Romanov (Fermilab)*
- TUP009 **A Computational Model for Muons Passing Gas and Plasma Targets: Beam Emittance.** – *A. Samolov (ODU), A.L. Godunov (ODU)*
- TUP010 **Code TESLA for Modeling and Design of High-Power, High-Efficiency Klystrons** – *I.A. Chernyavskiy (SAIC) T.M. Antonsen (UMD) S.J. Cooke, B. Levush, A.N. Vlasov (NRL)*
- TUP011 **Multipactor Dynamics in Dielectric-Loaded Accelerator Structures** – *O.V. Sinitsyn (UMD), T.M. Antonsen, G.S. Nusinovich (UMD)*

## Tuesday, March 29

- TUP012 **Computer Simulations of Waveguide Window and Coupler Iris for Precision Matching** – S.W. Lee (ORNL RAD) Y.W. Kang, A.V. Vasioutchenko (ORNL)
- TUP013 **The Conceptual Design of Expanding Heifei Light Source into Compton Light Source** – D.R. Xu (USTC/NSRL)
- TUP014 **Broad-band Beam Chopper for a CW Proton Linac at Fermilab** – N. Solyak (Fermilab), V.A. Lebedev, R.L. Madrak, S. Nagaitsev, R.J. Pasquinelli, D. Sun, R.C. Webber, M. Wendt (Fermilab)
- TUP015 **Concept Design of the 1.3 GHz, 3-8 GeV Pulse Linac of the Project X** – N. Solyak (Fermilab), V.A. Lebedev, S. Nagaitsev, A. Vostrikov, V.P. Yakovlev (Fermilab)
- TUP016 **Beam Brightness Booster with Charge Exchange Injection and Superintense Circulating Beams Production** – V.G. Dudnikov (Muons, Inc), C.M. Ankenbrandt (Muons, Inc)
- TUP017 **Conceptual Design of the Elinac 300 keV Gun** – C.D. Beard (TRIUMF)
- TUP018 **Design of a S-Band 4,5 Cells RF Gun** – R. Roux (LAL), C. Bruni, P. Lepercq, H. Monard (LAL)
- TUP019 **The S-DALINAC Polarized Injector SPIN - Performance and Results** – C. Eckardt (TU Darmstadt), T. Bahlo, P. Bangert, R. Barday, U. Bonnes, M. Brunken, C. Burandt, R. Eichhorn, J. Enders, M. Espig, C. Ingenhaag, J. Lindemann, M. Platz, Y. Poltoratska, M. Roth, F. Schneider, H. Schuessler, M. Wagner, A. Weber, B. Zwicker (TU Darmstadt) W. Ackermann, W.F.O. Müller, T. Weiland (TEME; TU Darmstadt) K. Aulenbacher (IKP)
- TUP020 **A New Continuous Muon Beam Line Using a Highly Efficient Pion Capture System at RCNP.** – H. Sakamoto (Osaka University), Y. Kuno, A. Sato (Osaka University) S. Cook, R.T.P. D'Arcy (UCL) M. Fukuda, K. Hatanaka (RCNP) T. Ogitsu, A. Yamamoto, M.Y. Yoshida (KEK)
- TUP021 **Cold High-current Cathode Employing Diamond and Related Films** – O.A. Ivanov (IAP/RAS), V.A. Isaev, M.A. Lobaeu, A.L. Vikharev (IAP/RAS) J.L. Hirshfield (Omega-P, Inc.)
- TUP022 **Carbon Nanotube Cathode Electron Gun for Electron Lenses** – V.D. Shiltsev (Fermilab), G.F. Kuznetsov (Fermilab)

## Tuesday, March 29

- TUP023 **X-Band RF Photoinjector Research and Development** – R.A. Marsh (LLNL), S.G. Anderson, C.P.J. Barty, G.K. Beer, R.R. Cross, C.A. Ebbers, D.J. Gibson, F.V. Hartemann, T.L. Houck (LLNL) C. Adolphsen, A.E. Candel, T.S. Chu, E.N. Jongewaard, Z. Li, C. Limborg-Deprey, T.O. Raubenheimer, S.G. Tantawi, A.E. Vlieks, F. Wang, J.W. Wang, F. Zhou (SLAC)
- TUP024 **Temperature Measurements in the NCRF Injector Tests** – C.E. Heath (LANL), F.L. Krawczyk, P.S. Marroquin, E.A. Martinez, N.A. Moody, D.C. Nguyen, T.L. Tomei (LANL)
- TUP025 **Two Wien Filter Spin Flipper** – J.M. Grames (JLAB), P.A. Adderley, J. F. Benesch, J. Clark, J. Hansknecht, R. Kazimi, D. Machie, M. Poelker, M.L. Stutzman, R. Suleiman, Y. Zhang (JLAB)
- TUP026 **Cavity Design for the TRIUMF eLINAC** – P. Kolb (TRIUMF), Y.-C. Chao, S.R. Koscielniak, R.E. Laxdal, V. Zvyagintsev (TRIUMF)
- TUP027 **The SRF Program for e-Linac at TRIUMF** – R.E. Laxdal (TRIUMF), C.D. Beard, P. Kolb, D. Longuevergne, A.K. Mitra, V. Zvyagintsev (TRIUMF)
- TUP028 **Piezo Control for Compensation of Lorentz Force Detuning in SC Cavities** – M.K. Grecki (DESY) T. Pozniak, K.P. Przygoda (TUL-DMCS)
- TUP029 **Low-Beta Superconducting RF Cavity Tune Options** – E.N. Zaplatin (FZJ)
- TUP030 **IFMIF-EVEDA SC beta=0.094 Half-Wave Resonator Prototype Study** – E.N. Zaplatin (FZJ) P. Bosland, P. Bredy, N. Grouas, P. Hardy, J. Migne, A. Mosnier, F. Orsini, J. Plouin (CEA)
- TUP031 **Project X Elliptical Cavity Structural Analyses** – E.N. Zaplatin (FZJ)
- TUP032 **Development of 1.3 GHz Prototype Niobium Single Cell Superconducting Cavity Under IIFC Collaboration** – A. Puntambekar (RRCAT), M. Bagre, J. Dwivedi, P.D. Gupta, R.K. Gupta, S.C. Joshi, G.V. Kane, R.S. Sandha, S.D. Sharma, P. Shrivastava (RRCAT) C.A. Cooper, M.H. Foley, T.N. Khabiboulline, C.S. Mishra, J.P. Ozelis, A.M. Rowe, G. Wu (Fermilab) V. Jain (IIT) D. Kanjilal, K.K. Mistri, P.N. Prakash, A. Roy, J. Sacharias (IUAC) V.C. Sahni (Homi Bhabha National Institute (HBNI), DAE)

## Tuesday, March 29

- TUP033 **Engineering Design of Vertical Test Stand Cryostat** – S.K. Suhane (RRCAT), S. Das, P.D. Gupta, S.C. Joshi, P.K. Kush, S. Raghvendra, N.K. Sharma (RRCAT) C.S. Mishra (Fermilab) V.C. Sahni (Homi Bhabha National Institute (HBNI), DAE)
- TUP034 **Surface Analysis of Niobium Samples Electro-polished with SRF Cavity** – P.V. Tyagi (Sokendai) H. Hayano, S. Kato, M. Nishiwaki, T. Noguchi, T. Saeki, M. Sawabe (KEK)
- TUP035 **The Design of 7 Cell High Current Cavity at Peking University** – Y.M. Li (PKU/IHIP)
- TUP036 **Three-stub Half Wave Superconducting Resonator Design** – L. Yang (Peking University, School of Physics) X.Y. Lu, Z.Y. Yao (PKU/IHIP)
- TUP037 **New Design of Spoke Cavity to Suppress Multipacting** – Z.Y. Yao (PKU/IHIP)
- TUP038 **LLRF System for PKU 3.5 Cell Photocathode Injector : Design and Performance** – H. Zhang (PKU/IHIP)
- TUP039 **Low Latency Data Transmission in LLRF Systems** – D.R. Makowski (TUL-DMCS), G.W. Jablonski, P. Predki (TUL-DMCS)
- TUP040 **Asset Management Application for a LLRF Control System** – B. Sakowicz (TUL-DMCS), M. Kaminski, D.R. Makowski, P. Mazur, A. Napieralski (TUL-DMCS)
- TUP041 **Quench Dynamics in SRF Cavities: Can We Locate the Quench Origin using 2nd Sound?** – Y.B. Maximenko (MIPT) D.A. Sergatskov (Fermilab)
- TUP042 **RF Measurements and Numerical Simulations for the Cold Model of the Bilbao Linac Double Spoke Cavity** – J.L. Munoz (ESS Bilbao), N. Garmendia, V. Toyos (ESS Bilbao) E. Asua (UPV-EHU) E.J. Bermejo (Bilbao, Faculty of Science and Technology) V. Etxebarria, J. Portilla (University of the Basque Country, Faculty of Science and Technology) J. Feuchtwanger (ESS-Bilbao) J. Lucas (Elytt Energy)
- TUP043 **Operational Experience of the Superconducting RF Module at TLS** – M.-S. Yeh (NSRRC)
- TUP044 **A Comparison of Superconducting RF Structures for 30 to 160 MeV Proton Acceleration** – Z.A. Conway (ANL), J.D. Fuerst, M.P. Kelly, B. Mustapha, P.N. Ostroumov, J. Xu (ANL)

## Tuesday, March 29

- TUP045 **A New Electropolishing System for Low-Beta SC Cavities** – S.M. Gerbick (ANL), M.P. Kelly, R.C. Murphy, T.C. Reid (ANL)
- TUP046 **Superconducting Beta=0.077 Quarter-wave Cavity for ATLAS** – M.P. Kelly (ANL), Z.A. Conway, S.M. Gerbick, M. Kedzie, P.N. Ostroumov (ANL)
- TUP047 **High Pressure Rinse System for Multiple SRF Cavities** – R.C. Murphy (ANL), J.D. Fuerst, S.M. Gerbick, M. Kedzie, M.P. Kelly, T.C. Reid (ANL)
- TUP048 **ALD Coatings for Superconducting RF Structures** – J. Norem (ANL), J. Klug, M.J. Pellin, Th. Proslie (ANL) N. Becker (IIT)
- TUP049 **Vacuum Arcs and Gradient Limits** – J. Norem (ANL), Z. Insepov (ANL) D. Huang (Fermilab) S. Mahalingam, S.A. Veitzer (Tech-X)
- TUP050 **Current State of Electropolishing at ANL** – T.C. Reid (ANL)
- TUP051 **Design And First Cold Test Of BNL Superconducting 112 MHz QWR For Electron Gun Applications** – S.A. Belomestnykh (BNL), I. Ben-Zvi, X. Chang, R. Than (BNL) C.H. Boulware, T.L. Grimm, B. Siegel, M.J. Winowski (Niowave, Inc.)
- TUP052 **HOM Damping Properties of Fundamental Power Couplers in the Superconducting Electron Gun of the Energy Recovery Linac at Brookhaven National Laboratory** – L.R. Hammons (BNL), H. Hahn (BNL)
- TUP053 **Ferrite HOM Load Surrounding a Ceramic Break** – L.R. Hammons (BNL), H. Hahn (BNL)
- TUP054 **Mechanical Design of 56 MHz Superconducting RF Cavity for RHIC Collider** – C. Pai (BNL), I. Ben-Zvi, A. Burrill, X. Chang, G.T. McIntyre, R. Than, J.E. Tuozzolo, Q. Wu (BNL)
- TUP055 **Design and Preliminary Tests of the 1500 MHz NSLS-II Passive Superconducting Cavity** – J. Rose (BNL), W.K. Gash, V. Ravindranath, N.A. Towne (BNL) C.H. Boulware, T.L. Grimm, B. Siegel (Niowave, Inc.)
- TUP056 **BNL 703 MHz Superconducting RF Cavity Testing** – B. Sheehy (BNL), Z. Altinbas, I. Ben-Zvi, D.M. Gassner, H. Hahn, L.R. Hammons, J.P. Jamilkowski, D. Kayran, J. Kewisch, N. Laloudakis, D.L. Lederle, V. Litvinenko, G.T. McIntyre, D. Pate, D. Phillips, C. Schultheiss,

## Tuesday, March 29

*T. Seda, R. Than, W. Xu, A. Zaltsman (BNL) A. Burrill (JLAB)*

- TUP057 **Design of Fundamental Power Coupler for 56MHz SRF Cavity** – *Q. Wu (BNL), S. Bellavia, I. Ben-Zvi, C. Pai (BNL)*
- TUP058 **Fundamental Damper Power Calculation of the 56MHz SRF Cavity for RHIC** – *Q. Wu (BNL), S. Bellavia, I. Ben-Zvi, M.C. Grau, G. Miglionico, C. Pai (BNL)*
- TUP059 **Multipacting in a Grooved Choke Joint** – *W. Xu (BNL), I. Ben-Zvi, A. Burrill (BNL)*
- TUP060 **New HOM Coupler Design for High Current Superconducting Cavity** – *W. Xu (BNL), I. Ben-Zvi, H. Hahn, E.C. Johnson (BNL)*
- TUP061 **FPC Conditioning Cart at BNL** – *W. Xu (BNL), Z. Altinbas, I. Ben-Zvi, A. Burrill, J.P. Jamilkowski, D. Kayran, G.T. McIntyre, D. Pate, D. Phillips, T. Seda, T.N. Talerico, D. Weiss, A. Zaltsman (BNL) M.D. Cole (AES)*
- TUP062 **Design of Coupler for the NSLS-II Storage Ring Superconducting RF Cavity** – *M. Yeddulla (BNL), J. Rose (BNL)*
- TUP063 **HOM Measurements with Beam at the Cornell Injector Cryomodule** – *S.E. Posen (CLASSE), M. Liepe (CLASSE)*
- TUP064 **Designing Multiple Cavity Classes for the Main Linac of Cornell's ERL** – *N.R.A. Valles (CLASSE), M. Liepe (CLASSE)*
- TUP065 **Coupler Designs and Multipacting Simulations for a TE Cavity** – *Y. Xie (CLASSE), M. Liepe (CLASSE)*
- TUP066 **Three-cell Traveling-wave Superconducting Test Structure** – *P.V. Avrakhov (Euclid TechLabs, LLC), A. Kanareykin (Euclid TechLabs, LLC) S. Kazakov, N. Solyak, G. Wu, V.P. Yakovlev (Fermilab)*
- TUP067 **Development and Testing of Prototype Fundamental Power Couplers for FRIB Half Wave Resonators** – *J. Popielarski (FRIB), P. Glennon, M. Leitner, J. Wlodarczak (FRIB)*
- TUP068 **Systems Testing of Cryomodules for an Ion Reaccelerator Linac** – *J. Popielarski (FRIB), W. Hartung, M. Hodek, J.P. Holzbauer, D. Leitner, J. Wlodarczak (FRIB)*

## Tuesday, March 29

- TUP069 **Status of the Mechanical Design of the 650 MHz Cavities for Project X** – *M.H. Foley (Fermilab), S. Barbanotti, M.S. Champion, I.G. Gonin, J. Grimm, L. Ristori, V.P. Yakovlev (Fermilab)*
- TUP071 **High Power Tests of Dressed Superconducting 1.3 GHz RF Cavities** – *A. Hocker (Fermilab), E.R. Harms, A. Lunin, A.I. Sukhanov (Fermilab)*
- TUP072 **HP Couplers for the Project X Linac** – *S. Kazakov (Fermilab), M.S. Champion, M. Kramp, V.P. Yakovlev (Fermilab)*
- TUP073 **Development of an L-band Ferroelectric Phase Shifter** – *S. Kazakov (Fermilab), N. Solyak, V.P. Yakovlev (Fermilab) J.L. Hirshfield (Yale University, Physics Department) A. Kanareykin (Euclid TechLabs, LLC)*
- TUP074 **Experiments on HOM Spectrum Manipulation in a 1.3 GHz ILC SC Cavity** – *T.N. Khabiboulline (Fermilab), N. Solyak, V.P. Yakovlev (Fermilab)*
- TUP075 **Cavity Loss Factors for Non-Relativistic Beam in the Project X Linac** – *A. Lunin (Fermilab), S. Kazakov, V.P. Yakovlev (Fermilab)*
- TUP076 **First High Power Pulsed Tests of a Dressed 325 MHz Superconducting Single Spoke Resonator at Fermilab** – *R.L. Madrak (Fermilab), C. Darve, T.N. Khabiboulline, A. Mukherjee, T.H. Nicol, E. Peoples-Evans, D.W. Peterson, L. Ristori, W.M. Soyars, J. Steimel, R.L. Wagner, R.C. Webber (Fermilab)*
- TUP077 **Vibrational Measurements for Commissioning SRF Accelerator Test Facility at Fermilab** – *M.W. McGee (Fermilab), J.R. Leibfritz, A. Martinez, Y.M. Pischalnikov, W. Schappert (Fermilab)*
- TUP078 **Fermilab 1.3-GHz Cryomodule Cooldown and RF Tests** – *S. Nagaitsev (Fermilab), J. Branlard, G.I. Cancelo, B. Chase, E. Cullerton, E.R. Harms, P.W. Joireman, A.L. Klebaner, J.R. Leibfritz, A. Martinez, D.J. Nicklaus, Y.M. Pischalnikov, P.S. Prieto, J. Reid, W. Schappert, V. Tupikov, P. Varghese, M. Wendt, T.J. Zmuda (Fermilab)*
- TUP079 **Cryomodule Design for 325 MHz Superconducting Single Spoke Cavities and Solenoids** – *T.H. Nicol (Fermilab), S. Cheban, F. McConologue, T.J. Peterson, V. Poloubotko, L. Ristori, W. Schappert, I. Terechkine (Fermilab)*
- TUP080 **A 325 MHz SRF Spoke Cavity Tuner Tests** – *Y.M. Pischalnikov (Fermilab), E. Borissou,*



## Tuesday, March 29

*T.N. Khabiboulline, R.V. Pilipenko, L. Ristori, W. Schappert (Fermilab)*

- TUP081 Resonance Control In SRF Cavities at FNAL** – *Y.M. Pischalnikov (Fermilab), W. Schappert (Fermilab)*
- TUP082 Test of a Coaxial Blade Tuner at HTS/FNAL** – *Y.M. Pischalnikov (Fermilab), S. Barbanotti, E.R. Harms, A. Hocker, T.N. Khabiboulline, W. Schappert (Fermilab) A. Bosotti, C. Pagani, R. Paparella (INFN/LASA) M. Scorrano (INFN-Pisa)*
- TUP083 Phase and Frequency Locked Magnetrons for SRF Sources** – *M. Popovic (Fermilab), A. Moretti (Fermilab) A. Dudas, R.P. Johnson, M.L. Neubauer, R. Sah (Muons, Inc)*
- TUP084 Design of Single Spoke Resonators for Project X** – *L. Ristori (Fermilab), S. Barbanotti, I.G. Gonin, N. Solyak, V.P. Yakovlev (Fermilab)*
- TUP085 Assumptions for the RF Losses in the 650 MHz Cavities of the Project X Linac** – *A. Romanenko (Fermilab), L. Cooley, N. Solyak, V.P. Yakovlev (Fermilab)*
- TUP086 Microphonics in the CW Project X Linac** – *W. Schappert (Fermilab), G.I. Cancelo, R.H. Carcagno, B. Chase, Y.M. Pischalnikov, N. Solyak, V.P. Yakovlev (Fermilab)*
- TUP087 Automation of Optical Inspection of SRF Cavities** – *E. Toropov (Fermilab), D.A. Sergatskov (Fermilab)*
- TUP088 HOMs in the Project X Linac** – *V.P. Yakovlev (Fermilab), I.G. Gonin, T.N. Khabiboulline, A. Lunin, N. Solyak, A.I. Sukhanov, A. Vostrikov (Fermilab) A. Saini (University of Delhi)*
- TUP089 Concept EM Design of the 650 MHz Cavities for the Project X** – *V.P. Yakovlev (Fermilab), M.S. Champion, I.G. Gonin, T.N. Khabiboulline, A. Lunin, N. Solyak (Fermilab) A. Saini (University of Delhi)*
- TUP090 Design of a Beta = 0.29 Half-Wave Resonator for the FRIB Driver Linac** – *J.P. Holzbauer (NSCL), W. Hartung, J. Popielarski (NSCL)*
- TUP091 Electromagnetic Design of a Multi-harmonic Buncher for the FRIB Driver Linac** – *J.P. Holzbauer (NSCL), W. Hartung, F. Marti, Q. Zhao (NSCL) E. Pozdeyev (FRIB)*

## Tuesday, March 29

- TUP092 **Multi-purpose 805 MHz Pillbox RF Cavity for Muon Acceleration Studies** – *M.L. Neubauer (Muons, Inc), G. Flanagan, R.P. Johnson, G.M. Kazakevich, R. Sah (Muons, Inc) K.C.D. Chan, A.J. Jason, S.S. Kurennoy, H.M. Miyadera, P.J. Turchi (LANL) A. Moretti, M. Popovic, K. Yonehara (Fermilab) Y. Torun (IIT)*
- TUP093 **High Power Coax Window** – *M.L. Neubauer (Muons, Inc), A. Dudas, R. Sah (Muons, Inc) T.S. Elliott, R.A. Rimmer, M. Stirbet (JLAB)*
- TUP094 **Novel Crab Cavity RF Design** – *M.L. Neubauer (Muons, Inc), A. Dudas, R. Sah (Muons, Inc) G.A. Krafft, R.A. Rimmer (JLAB)*
- TUP095 **Adjustable High Power Coax RF Coupler without Moving Parts** – *M.L. Neubauer (Muons, Inc), A. Dudas, R. Sah (Muons, Inc) M. Borland, R. Nasiri (ANL)*
- TUP096 **Beam Pipe HOM Absorber for 750 MHz RF Cavities** – *R. Sah (Muons, Inc), A. Dudas, M.L. Neubauer (Muons, Inc) G.H. Hoffstaetter, H. Padamsee, V.D. Shemelin (CLASSE)*
- TUP097 **Fundamental and HOM Coupler Design for the Superconducting Parallel-Bar Deflecting/Crabbing Cavity** – *S.U. De Silva (ODU), J.R. Delayen (ODU) S.U. De Silva*
- TUP098 **Multipacting Analysis of the Superconducting Parallel-Bar Deflecting/Crabbing Cavity** – *S.U. De Silva (ODU), J.R. Delayen (ODU) S.U. De Silva*
- TUP099 **Design of Superconducting Parallel-bar Deflecting/Crabbing Cavities with Improved Properties** – *J.R. Delayen (ODU), S.U. De Silva (ODU) J.R. Delayen*
- TUP100 **Design of Superconducting Spoke Cavities for High-velocity Applications** – *J.R. Delayen (ODU), S.U. De Silva, C.S. Hopper (ODU) J.R. Delayen*
- TUP101 **Electro-optical Diagnostics of RF Plasma used for Plasma Etching of the Superconducting Radio Frequency Cavity** – *J. Upadhyay (ODU), A.L. Godunov, M. Nikolić, S. Popovic, A. Samolov, L. Vuskovic (ODU) H.L. Phillips, A-M. Valente-Feliciano (JLAB)*
- TUP102 **Cryogenic RF Material Testing Facility at SLAC** – *J. Guo (SLAC), D.W. Martin, S.G. Tantawi, C. Yoneda (SLAC)*

## Tuesday, March 29

- TUP103 **Flux-coupled Cyclotron Stack III: Dielectric-loaded Superconducting Cavity** – *P.M. McIntyre (Texas A&M University), N. Pogue, A. Sattarov (Texas A&M University)*
- TUP104 **Nb<sub>3</sub>Sn Block-coil Dipole for High-field Substitution in the LHC Lattice** – *P.M. McIntyre (Texas A&M University), E.F. Holik, A.D. McInturff, A. Sattarov (Texas A&M University)*
- TUP105 **Fabrication of a Model Polyhedral Superconducting Cavity** – *N. Pogue (Texas A&M University), P.M. McIntyre, A. Sattarov (Texas A&M University)*
- TUP106 **Effect of Surface Flow on Topography in Niobium Electropolishing** – *M.J. Kelley (JLAB) L. Zhao (The College of William and Mary)*
- TUP107 **RF-thermal Combined Simulations of a Superconducting HOM Coaxial Coupler** – *G. Cheng (JLAB), H. Wang (JLAB) D.N. Smithe (Tech-X)*
- TUP108 **Summary Report for the C50 Cryomodule Project** – *M.A. Drury (JLAB), G.K. Davis, J.F. Fischer, C. Grenoble, J. Hogan, L.K. King, K. Macha, J. Mammosser, A. Reilly, H. Wang (JLAB) E. Daly, J.P. Preble (ITER Organization) J. Saunders (ORNL RAD)*
- TUP109 **Fabrication, Treatment and Testing of a 1.5 Cell Photo-injector Cavity for BESSY** – *P. Kneisel (JLAB) O. Kugeler, A. Neumann (HZB) R. Nietubyc (The Andrzej Soltan Institute for Nuclear Studies, Centre Swierk) J.K. Sekutowicz (DESY)*
- TUP110 **Fabrication, Tuning, Treatment and Testing of Two 3.5 Cell Photo-injector Cavity for FZD** – *P. Kneisel (JLAB), L. Turlington (JLAB) A. Arnold, P. Murcek, J. Teichert (FZD)*
- TUP111 **Multipactoring Observation, Simulation and Suppression on a Superconducting TE<sub>011</sub> Cavity** – *H. Wang (JLAB), G. Ciovati (JLAB) L. Ge, Z. Li (SLAC)*
- TUP112 **Enhancement of RF Breakdown Threshold of Accelerator Structures by Magnetic Insulation** – *D. Stratakis (UCLA) J.C. Gallardo, R. B. Palmer (BNL)*
- TUP113 **Q-slope Studies at TRIUMF** – *A. Grassellino (University of Pennsylvania)*
- TUP114 **Rugged, Solid-state, RF Amplifiers for Accelerator Applications: Design and Performance from an Industry Perspective** – *S.C. Dillon (Tomco Technologies), J.L. Reid (Tomco Technologies)*

## Tuesday, March 29

- TUP115 **A High Power Solid State Amplifier for the LNLS RF System** – *R.H.A. Farias (LNLS), J.F.F. Ferrari, C. Pardine, F. Santiago de Oliveira (LNLS)*
- TUP116 **Circuit Modeling of Multicavity Klystron with Linear Beam Motion** – *T.M. Abuefadel (Cairo University), M.H. Alaa, I.E. Eshrah, Y. Nour El-din (Cairo University) S.G. Tantawi (SLAC)*
- TUP117 **Solid State Direct Drive RF LINAC: High Power Experimental Program** – *T.J.S. Hughes (Siemens AG) O. Heid (Siemens AG, Healthcare Technology and Concepts)*
- TUP118 **Development of 700 Watt, 350 MHz Solid-state Power Amplifier for RF Accelerator** – *V.R. Bala (BARC), V.K. Handu, J.K. Mishra, M.M. Pande (BARC)*
- TUP119 **Test Results and Operating Experience of 35 KW (CW), 350 MHz Radio Frequency System for RFQ Accelerator Based Neutron Generator** – *M.M. Pande (BARC), V.K. Handu, N.R. Patel, S. Sharma, S. Shrotriya (BARC) S. Kailas (Bhabha Atomic Research Centre, Physics Group) V.C. Sahni (Homi Bhabha National Institute (HBNI), DAE)*
- TUP120 **IFMIF/EVEDA RF Power System** – *D. Regidor (CIEMAT), A. Arriaga, A. Ibarra, I. Kirpichev, P. Méndez (CIEMAT) M. Desmons, A. Mosnier (CEA) J.M. Forteza, C.R. Isnardi (Indra Sistemas) F. Perez, A. Salom (CELLS-ALBA Synchrotron) D. Vandeplassche (SCK-CEN)*
- TUP121 **CPI Klystrons Upgrade at Taiwan Light Source at NSRRC and its Experimental Demonstration** – *T.-C. Yu (NSRRC), Ch. Wang (NSRRC)*
- TUP122 **Thales 300kW Transmitter Systems Commissioning Test at NSRRC** – *T.-C. Yu (NSRRC), L.-H. Chang (NSRRC)*
- TUP123 **Performance of the 352-MHz 4-kW CW Solid State RF Power Amplifier System using 1-kW Push-pull Devices** – *D. Horan (ANL), G.J. Waldschmidt (ANL)*
- TUP124 **Cavity Design for Elliptic Beam Klystrons and Elliptic Inductive Output Tubes** – *J.Z. Zhou (Beam Power Technology, Inc.), C. Chen (Beam Power Technology, Inc.)*
- TUP125 **High Power RF Systems for the BNL ERL Project** – *A. Zaltsman (BNL), R.F. Lambiase (BNL)*

## Tuesday, March 29

- TUP126 **Development of a 100 kW CW, S-Band, PPM Focused Klystron** – *P. Ferguson (CCR), R.L. Ives, D. Marsden, M.E. Read (CCR)*
- TUP127 **350 MHz, 200 kW Multiple Beam Inductive Output Tube** – *R.L. Ives (CCR), R.H. Jackson, D. Marsden, M.E. Read (CCR) E.L. Eisen, T. Kumura (CPI)*
- TUP128 **Development of a 402.5 MHz 140 kW Inductive Output Tube (IOT)** – *M.E. Read (CCR), T. Bui, R.L. Ives, R.H. Jackson (CCR) H. Freund (SAIC)*
- TUP129 **Simulation Results of RF Coupler Controllable by Dielectric Fluid** – *P. Chen (DULY Research Inc.), A. Smirnov, D. Yu (DULY Research Inc.)*
- TUP130 **Voltage Droop Compensation for High Power Marx Modulators** – *P. Chen (DULY Research Inc.), M. Lundquist, D. Yu (DULY Research Inc.)*
- TUP131 **A New Main Injector Radio Frequency System For 2.3 MW Project X Operations** – *J.E. Dey (Fermilab), I. Kourbanis (Fermilab)*
- TUP132 **50 MW X-Band RF System for a Photoinjector Test Station at LLNL** – *T.L. Houck (LLNL), S.G. Anderson, C.P.J. Barty, G.K. Beer, R.R. Cross, C.A. Ebberts, D.J. Gibson, F.V. Hartemann, R.A. Marsh (LLNL) C. Adolphsen, A.E. Candel, T.S. Chu, E.N. Jongewaard, Z. Li, T.O. Raubenheimer, S.G. Tantawi, A.E. Vlieks, F. Wang, J.W. Wang, F. Zhou (SLAC)*
- TUP133 **Mechanical Design and Fabrication of A New RF Power Amplifier For LANSCE** – *Z.C. Chen (LANL), M.J. Borden, N.K. Bultman, C.A. Chapman, J. Davis, J.L. Ferris, T.S. Gomez, J.T.M. Lyles, A.C. Naranjo (LANL) D. Baca, R.E. Bratton (Compa Industries, Inc.)*
- TUP134 **New High Power Test Facility for VHF Power Amplifiers at LANSCE** – *J.T.M. Lyles (LANL), S. Archuletta, J. Davis, D. Rees, M.R. Rodriguez, G. M. Sandoval, Jr., A. Steck, D.J. Vigil (LANL) D. Baca, R.E. Bratton, R.D. Summers (Compa Industries, Inc.) N.W. Brennan (Texas A&M University)*
- TUP135 **RF Design and Operating Results for a New 201.25 MHz RF Power Amplifier for LANSCE** – *J.T.M. Lyles (LANL), N.K. Bultman, Z.C. Chen, J. Davis, A.C. Naranjo, D. Rees, G. M. Sandoval, Jr. (LANL) D. Baca, R.E. Bratton, R.D. Summers (Compa Industries, Inc.) N.W. Brennan (Texas A&M University)*

## Tuesday, March 29

- TUP136 **High-Power Microwave Generation with Non-Linear Transmission Lines at Los Alamos National Laboratory** – *S.J. Russell (LANL), B.E. Carlsten, C.-F. Chen, G.E. Dale, D. Dalmas, L.M. Earley, W.B. Haynes, M.A. Holloway, Q.R. Marksteiner, D.W. Reagor, W.P. Romero (LANL)*
- TUP137 **Solid-State Upgrade to the SNS MEBT RF Power Amplifiers** – *M.E. Middendorf (ORNL RAD) M.E. Clemmer, T.W. Hardek (ORNL)*
- TUP138 **ILC Klystron Cluster System Waveguide Component Tests** – *C.D. Nantista (SLAC), C. Adolphsen, G.B. Bowden, F. Wang (SLAC)*
- TUP139 **Initial High Power Test Results of Dual-Moded Breakdown Cavity** – *F. Wang (SLAC), C. Adolphsen, C.D. Nantista (SLAC)*
- TUP140 **RF Power Upgrade for CEBAF at Jefferson Laboratory** – *R.M. Nelson (JLAB), A.J. Kimber (JLAB)*
- TUP141 **RF Solid State Driver for Argonne Light Source** – *B. Popovic (University of Iowa)*
- TUP142 **Magnetic Measurement of Quadrupole Prototype for CSNS/RCS** – *L. Li (IHEP Beijing), C.D. Deng, W. Kang, B. Yin, J.X. Zhou (IHEP Beijing)*
- TUP143 **Test Results of the Magnetic Field Measurements for NSLS-II Sextupole** – *L. Li (IHEP Beijing), W. Kang, C. Shi, X.J. Sun (IHEP Beijing)*
- TUP144 **Design and Prototyping of a Step-like Field Magnet** – *G. Feng (USTC/NSRL)*
- TUP145 **The Magnet Design of the Rebuilt HLS Storage Ring** – *Z. Zhang (USTC/NSRL), G. Feng (USTC/NSRL)*
- TUP146 **Large Aperture Quadrupole Magnets for ISIS TS-1 and TS-2** – *S.M. Gurov (BINP SB RAS), A.M. Batrakov, M.F. Blinov, F.A. Emanov, V.V. Kobets, V.A. Polukhin, A.S. Tsyganov, T.A. Yaskina (BINP SB RAS) S.J.S. Jago, J. Shih, S.F.S. Tomlinson (STFC/RAL/ISIS)*
- TUP147 **Rotating Dipole and Quadrupole Field** – *X. Chang (BNL), I. Ben-Zvi, J. Kewisch, V. Litvinenko, W. Meng, A.I. Pikin, V. Ptitsyn, T. Rao, B. Sheehy, J. Skaritka, Q. Wu (BNL) E. Wang (PKU/IHIP) T. Xin (Stony Brook University)*
- TUP148 **Assembly, Measurement and Analysis of Centimeter-gap Quadrupole** – *Y. Hao (BNL), P. He, A.K. Jain, V. Litvinenko, G.J. Mahler, W. Meng (BNL)*

## Tuesday, March 29

- TUP149 **Magnetic Field Mapping and Integral Transfer Function Matching of the Prototype Dipoles for the NSLS-II at BNL** – *P. He (BNL), M. Anerella, G. Ganetis, R.C. Gupta, A.K. Jain, P.N. Joshi, J. Skaritka, C.J. Spataro, P. Wanderer (BNL)*
- TUP150 **Accelerator Ring Magnets for the Rapid Cycling Medical Synchrotron** – *J.E. Tuozzolo (BNL), C. Cullen, W.A. Jackson, M. Mapes, I. Marnieris, B. Martin, W. Meng, S.K. Nayak (BNL)*
- TUP151 **Fermilab Main Injector Quadrupole Magnet Analysis: Harmonics and Geometry** – *D.J. Harding (Fermilab)*
- TUP152 **Dipole Corrector Magnets for the LBNE Beam Line** – *M. Yu (Fermilab), D.J. Harding, G. Velez (Fermilab)*
- TUP153 **Fabrication and Test of Helical Solenoid Short Model Based on YBCO Tape** – *M. Yu (Fermilab), V. Lombardo, M.L. Lopes, D. Turrioni, A.V. Zlobin (Fermilab) G. Flanagan, R.P. Johnson (Muons, Inc)*
- TUP154 **YBCO Conductor Technology for High Field Muon Cooling Magnets** – *S.A. Kahn (Muons, Inc), G. Flanagan, R.P. Johnson, M. Turenne (Muons, Inc) F. Hunte, J. Schwartz (North Carolina State University)*
- TUP155 **The Development of Superconducting Magnet Design Method for a 28 GHz ECR Ion Source** – *B.S. Lee (Korea Basic Science Institute), M. Won (Korea Basic Science Institute)*
- TUP157 **Internal Energy Dump for Superconducting Magnet of the Uni-polar Power System** – *Y.S. Wong (NSRRC)*
- TUP158 **Analysis and Compensator Design of Magnet Correction Power Supply** – *Y.S. Wong (NSRRC)*
- TUP159 **Construction Status and Testing Plans of the MICE Focus Coils** – *C.D. Tunnell (JAI)*
- TUP160 **Thermal Test Studies of the Performance of a LHe Thermosiphon Incorporating a Horizontal Flow Path** – *Q.B. Hasse (ANL), J.D. Fuerst, Y. Ivanyushenkov (ANL) J.M. Pfoth-hauer, D.C. Potratz (UW-Madison/EP)*
- TUP161 **Quench Properties of a Prototype Superconducting Undulator for the Advanced Photon Source** – *C.L. Doose (ANL), M. Kasa, S.H. Kim (ANL)*

## Tuesday, March 29

- TUP162 **Engineering Design of HTS Quadrupole for FRIB** – *J.P. Cozzolino (BNL), M. Anerella, A.K. Ghosh, R.C. Gupta, W. Sampson, Y. Shiroyanagi, P. Wanderer (BNL) A. Zeller (FRIB)*
- TUP163 **Design Construction and Test Results of a HTS Solenoid for Energy Recovery Linac** – *R.C. Gupta (BNL), M. Anerella, I. Ben-Zvi, G. Ganetis, D. Kayran, G.T. McIntyre, J.F. Muratore, S.R. Plate, W. Sampson, P. Wanderer (BNL) M.D. Cole, D. Holmes (AES)*
- TUP164 **Magnetic Design of e-lens Solenoid and Corrector System for RHIC** – *R.C. Gupta (BNL), M. Anerella, W. Fischer, G. Ganetis, X. Gu, A.K. Jain, P. Kovach, A. Marone, A.I. Pikin, S.R. Plate, P. Wanderer (BNL)*
- TUP165 **Design, Construction and Test of Cryogen-Free HTS Coil Structure** – *H.M. Hocker (BNL), M. Anerella, R.C. Gupta, S.R. Plate, W. Sampson, J. Schmalzle, Y. Shiroyanagi (BNL)*
- TUP166 **Quench Protection Studies in HTS with Small Coils** – *P.N. Joshi (BNL), M. Anerella, S. Dimaiuta, G. Ganetis, A.K. Ghosh, R.C. Gupta, W. Sampson, Y. Shiroyanagi (BNL) E. Evangelou (The Bronx High School of Science)*
- TUP167 **Mechanical Design and Development of a Magnet for the ILC Beam Delivery** – *A. Marone (BNL), M. Anerella, J. Escallier, P. He, B. Parker, P. Wanderer (BNL)*
- TUP169 **Measurements of the Effect of Axial Stress on YBCO Coils** – *W. Sampson (BNL), M. Anerella, J.P. Cozzolino, R.C. Gupta, Y. Shiroyanagi (BNL) E. Evangelou (The Bronx High School of Science)*
- TUP170 **Mechanical Design and Testing of an Alternate Structure for LARP Nb<sub>3</sub>Sn Quadrupole Magnets for LHC** – *J. Schmalzle (BNL), M. Anerella, J.P. Cozzolino, P. Kovach, P. Wanderer (BNL) G. Ambrosio, M.J. Lamm (Fermilab) S. Caspi, H. Felice, G.L. Sabbi (LBNL)*
- TUP171 **Influence of Proton Irradiation on Angular Dependence of High Temperature Superconductors in the Presence of an External Magnetic Field** – *Y. Shiroyanagi (BNL), G.A. Greene, R.C. Gupta, W. Sampson (BNL)*
- TUP172 **Studies of High-field Sections of a Muon Helical Cooling Channel with Coil Separation** – *M.L. Lopes (Fermilab), V.S. Kashikhin, K. Yonehara, M. Yu, A.V. Zlobin (Fermilab)*



## Tuesday, March 29

- TUP173 **Fabrication, Testing and Modeling of the MICE Superconducting Spectrometer Solenoids** – *S.P. Virostek (LBNL)*
- TUP174 **Field Quality Measurements of LARP HQ Magnet** – *X. Wang (LBNL), S. Caspi, D.W. Cheng, H. Felice, P. Ferracin, R.R. Hafalia, J.M. Joseph, J. Lizarazo, M. Martchevskii, G.L. Sabbi, C. Vu (LBNL) G. Ambrosio, R. Bossert, G. Chlachidze, V. Kashikhin (Fermilab)*
- TUP175 **Fabrication of the Jefferson Laboratory Cryogenic Control Reservoirs** – *M.L. Seely (Meyer Tool & MFG), E.C. Bonnema, D.J. Caravelli, E.K. Cunningham, E.C. Kasper, G.D. Koreky (Meyer Tool & MFG)*
- TUP176 **Rayleigh Backscattering Methods for Monitoring HTS Magnets** – *M. Turenne (Muons, Inc), R.P. Johnson (Muons, Inc) F Hunte, J. Schwartz (North Carolina State University)*
- TUP177 **Open Midplane Dipoles for a Muon Collider** – *R.J. Weggel (Particle Beam Lasers, Inc.), J. Kolonko, R.M. Scanlan (Particle Beam Lasers, Inc.) M. Anerella, R.C. Gupta, R. B. Palmer, J. Schmalzle (BNL)*
- TUP178 **Testing of TAMU3: A Block-coil Stress-managed Nb3Sn Model Dipole** – *A.D. McInturff (Texas A&M University), C.P. Benson, R. Blackburn, N. Diaczenko, T. Elliott, E.F. Holik, A. Jaisle, P.M. McIntyre, A. Sattarov (Texas A&M University)*
- TUP179 **Energy Deposition within Superconducting Coils of a 4MW Target Station** – *X.P. Ding (UCLA), D.B. Cline (UCLA) J.S. Berg, R.C. Fernow, H.G. Kirk, N. Souchlas (BNL)*
- TUP180 **High Precision Power Supply for Accelerator Magnets** – *A.S. Banerjee (DAE/VECC)*
- TUP181 **A Monitoring System for CSR Power Supply** – *W. Zhang (IMP)*
- TUP182 **In-situ System Identification for an Optimal Control of Magnet Power Supplies** – *X.H. Ke (University of Applied Sciences Northwest Switzerland), F Jenni (University of Applied Sciences Northwest Switzerland)*
- TUP183 **Self-Optimizing High Dynamic Power Supply Control** – *X.H. Ke (University of Applied Sciences Northwest Switzerland), F Jenni (University of Applied Sciences Northwest Switzerland) H. Jaeckle (PSI)*

## Tuesday, March 29

- TUP184 **TPS Fast Corrector Magnet Power Converter** – *Y.D. Li (NSRRC)*
- TUP185 **Design and Implementation of the LLC Resonant Transformer** – *C.-Y. Liu (NSRRC)*
- TUP186 **N+1 Redundancy Power Supply System by Paralleling Current Converter Modules with Digital Regulation Control** – *B.S. Wang (NSRRC)*
- TUP187 **Development of a DSP-based Digital Control Three Phase Shunt Active Power Filter for Magnet Power Supply System** – *B.S. Wang (NSRRC)*
- TUP188 **A New Power Supply System for the IEX Project at the APS** – *B. Deriy (ANL), M.S. Jaski, J. Wang (ANL)*
- TUP189 **A Simple Control Scheme to Achieve High-Resolution Current Regulation for Digitally Controlled DC/DC Converters at the APS** – *G. Feng (ANL), B. Deriy, T. Fors, J. Wang (ANL)*
- TUP190 **Upgrade of the APS Booster Synchrotron Magnet Ramp** – *C. Yao (ANL), G. Guang, H. Shang, J. Wang (ANL)*
- TUP191 **Booster Main Magnet Power Supply Present Operation and Potential Future Upgrades\*** – *E.M. Bajon (BNL), M. Bannon, G. Danowski, I. Marneris, J. Sandberg, S. Savatteri (BNL)*
- TUP192 **RHIC Power Supply One Wire Temperature Sensor System** – *D. Bruno (BNL), S.C. Ciro, A. Di Lieto, G. Ganetis, W. Louie, C. Mi, J. Sandberg, C. Theisen (BNL)*
- TUP193 **NSLS-II Power supply controller** – *W. Louie (BNL), L.R. Dalesio, G. Ganetis, J. Riciardelli, Y. Tian (BNL)*
- TUP194 **Phase-Lock Loop Upgrade for the RHIC Main Magnet Power Supplies** – *C. Schultheiss (BNL), C. Mi (BNL)*
- TUP195 **Commissioning the ALS Digital Power Supply Controller in the Booster Dipole and Quadrupole Magnet Power Supplies** – *J.M. Weber (LBNL), T. Scarvie, C. Steier, CA. Timossi (LBNL)*
- TUP196 **SLAC P2 MARX PEBB Control System and Regulation Scheme** – *D.J. MacNair (SLAC), M.A. Kemp, K.J.P. Macken, M.N. Nguyen, J.J. Olsen (SLAC)*
- TUP197 **Pulsed Sextupole Magnet Injection System at the LNLS** – *X.R. Resende (LNLS), F.C. Arroyo, R.H.A. Farias, L. Liu, A.R.D. Rodrigues, P.P. Sanchez, G. Tosin (LNLS)*

- TUP198 **Foil Scattering Issue Towards High Power Operation with the RCS of J-PARC** – *P.K. Saha (JAEA/J-PARC), H. Harada, H. Hotchi, K. Yamamoto, M. Yoshimoto (JAEA/J-PARC)*
- TUP199 **Physics Design of CSNS RCS Injection and Extraction Systems** – *J. Qiu (IHEP Beijing)*
- TUP200 **Temporal Pulse Shaping with Pulse Stacker and Emittance Improvement for Photocathode RF Gun** – *Z.G. He (USTC/NSRL), Q.K. Jia, J.G. Wang (USTC/NSRL)*
- TUP201 **Features of Orientational Motion, Channeling and Transportation in Crystals of Neutron Beams and Particles with the Abnormal Magnetic Moment** – *M.V. Vysotskyy (National Taras Shevchenko University of Kyiv, Radiophysical Faculty), V.I. Vysotskii (National Taras Shevchenko University of Kyiv, Radiophysical Faculty)*
- TUP202 **Proton Collector/buncher Strategies for Project-X** – *L.J. Jenner (Imperial College of Science and Technology, Department of Physics)*
- TUP203 **Magnet Design for an Integrable Non-Linear Accelerator Lattice** – *H. Witte (OXFORDphysics) A. Seryi (JAI)*
- TUP204 **Kicker Magnets and Pulse Forming Networks for PAMELA** – *H. Witte (OXFORDphysics), T. Yokoi (OXFORDphysics) M. Aslaninejad, J. Pasternak (Imperial College of Science and Technology, Department of Physics) K.J. Peach (JAI)*
- TUP205 **Conceptual Design of a Superconducting Septum for FFAGs** – *H. Witte (OXFORDphysics), T. Yokoi (OXFORDphysics) J. Pasternak (Imperial College of Science and Technology, Department of Physics) K.J. Peach (JAI)*
- TUP206 **Safe Gold Beam Dumping in the Alternating Gradient Synchrotron Aided by a Fast Plunging Electron Stripping Foil** – *L. A. Ahrens (BNL), C.J. Gardner, D.M. Gassner, G.J. Mahler, P. Thieberger (BNL)*
- TUP207 **The Effects of the RHIC E-lenses Magnetic Structure Layout on the Proton Beam Trajectory** – *X. Gu (BNL), W. Fischer, R.C. Gupta, J. Hock, A.K. Jain, Y. Luo, M. Okamura, A.I. Pikin, D. Raparia (BNL)*
- TUP208 **Beam Transport System Design Considerations for RHIC Electron Lens** – *X. Gu (BNL), W. Fischer, R.C. Gupta, J. Hock, A.K. Jain, Y. Luo, M. Okamura, A.I. Pikin, D. Raparia (BNL)*

## Tuesday, March 29

- TUP209 **Concept of a Single Power Supply Driving Four Parallel Kickers in a Storage Ring Injection Bump** – *R. Heese (BNL), R.P. Fliller, S. Kowalski, T.V. Shaftan, P. Singh, G.M. Wang (BNL)*
- TUP210 **Prototype of the Fast Extraction Kicker for the NSLS-II Booster Synchrotron** – *R. Heese (BNL), R.P. Fliller, S. Kowalski, T.V. Shaftan, P. Singh, G.M. Wang (BNL)*
- TUP211 **Compensation of Fast Kicker Rolls with Skew Quadrupoles** – *I. Pinayev (BNL)*
- TUP212 **Injection and Extraction of iRCMS** – *W. Zhang (BNL), H. Hahn, D.I. Lowenstein, W. Meng, J.-L. Mi, C. Pai, T. Roser, J. Sandberg, D. Trbojevic, N. Tsoupas, J.E. Tuozzolo (BNL)*
- TUP213 **Research and Development toward the RHIC Injection Kicker Upgrade** – *W. Zhang (BNL), W. Fischer, H. Hahn, C. Pai, J. Sandberg, J.E. Tuozzolo (BNL)*
- TUP214 **Coaxial High Temperature Oven for FRIB Uranium Ion Beams** – *T.J. Loew (LBNL)*
- TUP215 **Design of Cryogenic Control Valves on SRF Valve Boxes** – *M.H. Chang (NSRRC), F. Z. Hsiao, M.-C. Lin, H.H. Tsai, Ch. Wang (NSRRC)*
- TUP216 **Design of a Helium Phase Separator with Condense System** – *F. Z. Hsiao (NSRRC), T.Y. Huang, C.P. Liu, H.H. Tsai (NSRRC)*
- TUP217 **The Application of 400KW DC Bank for Cryogenic System at NSRRC** – *H.C. Li (NSRRC), S.-H. Chang, W.-S. Chiou, F. Z. Hsiao, T.F. Lin, H.H. Tsai (NSRRC)*
- TUP218 **The Design of a Liquid Helium Transfer System for the TPS Project** – *H.H. Tsai (NSRRC), M.H. Chang, F. Z. Hsiao, M.-C. Lin, C.P. Liu, Ch. Wang (NSRRC)*
- TUP219 **Temperature-Dependent Calibration of Hall Probes at Cryogenic Temperatures** – *M. Abliz (ANL), C.L. Doose, Y. Ivanyushenkov, I. Vasserman, J.Z. Xu (ANL)*
- TUP220 **Cryogenic Sub-System for the 56 MHz SRF Storage Cavity for RHIC** – *Y. Huang (BNL), D.L. Lederle, L. Masi, P. Orfin, T.N. Tallerico, P. Talty, R. Than, Y. Zhang (BNL)*
- TUP221 **Helium Pressures in RHIC Vacuum Cryostats and Relief Valve Requirements from Magnet Cooling Line Failure** – *C.J. Liaw (BNL), R. Than, J.E. Tuozzolo (BNL)*

- TUP222 **Helium Release Rates and ODH Calculations from RHIC Magnet Cooling Line Failure** – *C.J. Liaw (BNL), R. Than, J.E. Tuozzolo (BNL)*
- TUP223 **Cryogenic System for the Energy Recovery Linac and Vertical Test Facility at BNL** – *R. Than (BNL), D.L. Lederle, L. Masi, P. Orfin, R. Porqueddu, V. Soria, T.N. Tallerico, P. Talty, Y. Zhang (BNL)*
- TUP224 **Cryogenic Vertical Test Facility for the SRF Cavities at BNL** – *R. Than (BNL), I. Ben-Zvi, A. Burrill, M.C. Grau, D.L. Lederle, C.J. Liaw, G.T. McIntyre, D. Pate, R. Porqueddu, T.N. Tallerico, J.E. Tuozzolo (BNL)*
- TUP225 **Overview of Recent Studies Performed and Modifications Being Made to RHIC to Mitigate the Effects of a Potential Failure to the Helium Distribution System.** – *J.E. Tuozzolo (BNL), D. Bruno, A. Di Lieto, G. Heppner, R. Karol, E.T. Lessard, C.J. Liaw, G.T. McIntyre, C. Mi, J. Reich, J. Sandberg, S.K. Seberg, L. Smart, T.N. Tallerico, C. Theisen, R.J. Todd, R. Zapasek (BNL)*
- TUP226 **Direct Measurements of Secondary Emission Yield and Electron Cloud Lifetime in Magnetic Field** – *A.A. Krasnov (BINP SB RAS), V.V. Anashin, D.P. Sukhanov (BINP SB RAS) V.V. Smaluk (BINP)*
- TUP227 **Status of NSLS-II Storage Ring Vacuum Systems** – *H.-C. Hseuh (BNL), A. Blednykh, L. Doom, M.J. Ferreira, C. Hetzel, J. Hu, S. Leng, C. Longo, K. Roy, S. Sharma, F.J. Willeke, K. Wilson, D. Ziggrosser (BNL)*
- TUP228 **Design of the EBIS Vacuum System** – *M. Mapes (BNL)*
- TUP229 **Implementation and Operation of Electron Cloud Diagnostics for CEsrTA** – *Y. Li (CLASSE), J.V. Conway, X. Liu, V. Medjidzade, M.A. Palmer (CLASSE)*
- TUP230 **In-situ Secondary Electron Yield Measurement System at CEsrTA** – *Y. Li (CLASSE), J.V. Conway, S. Greenwald, J.-S. Kim, V. Medjidzade, T.P. Moore, M.A. Palmer, C.R. Strohman (CLASSE) D. Asner (Carleton University, College of Natural Sciences)*
- TUP231 **Applications of Textured Dysprosium to Short Period Insertion Devices** – *A.Y. Murokh (RadiaBeam), R.B. Agustsson, P. Frigola (RadiaBeam) V. Solovyov (BNL)*

## Tuesday, March 29

- TUP232 **Super-conducting Wigglers and the Effect on Injection Efficiency** – *M.J. Sigrist (CLS), L.O. Dallin, W.A. Wurtz (CLS)*
- TUP233 **Pulse Requirements for Field Integral Measurements in Pulsed Wire Method** – *S. Tripathi (Devi Ahilya University), G. Mishra (Devi Ahilya University)*
- TUP234 **Design Of An Apple-II Type Undulator For A 2.5 GeV Storage Ring** – *G. Sinha (RRCAT), S.S. Prabhu (RRCAT)*
- TUP235 **Strategy for Neutralizing the Impact of Insertion Devices on the MAX IV 3 GeV Storage Ring** – *E.J. Wallén (MAX-lab), S.C. Leemann (MAX-lab)*
- TUP236 **The Progress of Gradient Damping Wiggler of ALPHA Storage Ring** – *Z.W. Huang (NTHU), D.J. Huang (NTHU) S.D. Chen (NCTU) M.-H. Huang, C.-S. Hwang, C.Y. Kuo (NSRRC) S.-Y. Lee (IUCF)*
- TUP237 **Development of an In-Vacuum Undulator System for the Pohang Light Source** – *A. Deyhim (Advanced Design Consulting, Inc), J.D. Kulesza (Advanced Design Consulting, Inc) K.I. Blomqvist (MAX-lab)*
- TUP238 **Development of an Integrated Field Measurement System (IFMS) for NSLS II** – *A. Deyhim (Advanced Design Consulting, Inc), J.D. Kulesza, E. Van Every (Advanced Design Consulting, Inc)*
- TUP239 **Development of a Super-Mini Undulator** – *A. Deyhim (Advanced Design Consulting, Inc), J.D. Kulesza (Advanced Design Consulting, Inc) H.O. Moser (SSLS)*
- TUP240 **Coil Energizing Patterns for an Electromagnetic Polarizing Undulator** – *R.J. Dejus (ANL), M.S. Jaski, E.R. Moog (ANL) S. Sasaki (HSRC)*
- TUP241 **End-Field Analysis and Implementation of Correction Coils for a Short-Period NbTi Superconducting Undulator** – *C.L. Doose (ANL), M. Kasa, S.H. Kim (ANL)*
- TUP242 **Electron Cloud Issues for the APS Superconducting Undulator** – *K.C. Harkay (ANL), Y. Ivanyushenkov, R. Kustom, E.R. Moog, R.A. Rosenberg, E. Trakhtenberg (ANL) L.E. Boon, A.F. Garfinkel (Purdue University)*
- TUP243 **Development Status of a Magnetic Measurement System for the APS Superconducting Undulator** – *Y. Ivanyushenkov (ANL), M. Abliz, C.L. Doose, M. Kasa, E. Trakhtenberg,*

## Tuesday, March 29

*I. Vasserman (ANL) V.Kh. Lev, N.A. Mezentsev,  
V.M. Tsukanov (BINP SB RAS)*

- TUP244 **Magnetic Simulation of an Electromagnetic Variable Polarizing Undulator \*** – *M.S. Jaski (ANL), R.J. Dejus, E.R. Moog (ANL)*
- TUP245 **Comparison of Standard S-Glass and Ceramic Coating as Installation in Short-Period Superconducting Undulators based on Nb<sub>3</sub>Sn** – *S.H. Kim (ANL), C.L. Doose, M. Kasa, R. Kustom, E.R. Moog (ANL)*
- TUP246 **An In Vacuum Magnetic Measurement System for CPMU field survey** – *D.A. Harder (BNL), J. Rank, T. Tanabe (BNL)*
- TUP247 **Production of Two APPLE-II at NSLS-II** – *C.A. Kitegi (BNL), O.V. Chubar, C. Meyer, G. Rakowsky, T. Tanabe (BNL)*
- TUP248 **SC Undulator with the Possibility to Change Its Strength and Polarization by Feeding Current** – *A.A. Mikhailichenko (CLASSE)*
- TUP249 **Magnetic Measurements for Narrow-Gap Superconducting Undulators** – *D. Arbelaez (LBNL), A. Madur, S. Marks, S. Prestemon, D. Schlueter, T.M. Wilks (LBNL)*
- TUP250 **Laser Excitation of Electrostatic Eigenmode of a Plasma in Azimuthal Magnetic Field and Electron Acceleration** – *M. Kumar (Indian Institute of Technology Delhi, Plasma Physics Group), V.K. Tripathi (Indian Institute of Technology Delhi, Plasma Physics Group)*
- TUP251 **Performance Evaluation and Commissioning Results of a Prototype 100kV Long Pulse Solid State Bouncer Modulator Developed by RRCAT for CERN LINAC 4** – *P. Shrivastava (RRCAT), J. Mulchandani (RRCAT)*
- TUP252 **Optimization of a Dual One-turn Coils Kicker Magnet System** – *K.L. Tsai (NSRRC), C.-S. Fann, K.T. Hsu, S.Y. Hsu, K.-K. Lin, H.M. Shih (NSRRC)*
- TUP253 **AGS Tune Jump Power Supply Design and Test** – *J.-L. Mi (BNL), J.W. Glenn, H. Huang, I. Marneris, P.J. Rosas, J. Sandberg, Y. Tan, W. Zhang (BNL)*
- TUP254 **A Real Time Status Monitor for Transistor Bank Driver Power Limit Resistor in Boost Injection Kicker Power Supply** – *J.-L. Mi (BNL), J. Sandberg, Y. Tan, W. Zhang (BNL)*

## Tuesday, March 29

- TUP255 **Solid-State Transmitter for a 2 MW Klystron** – M.K. Kempkes (*Diversified Technologies, Inc.*), M.P.J. Gaudreau, T.H. Hawkey, K. Schrock (*Diversified Technologies, Inc.*)
- TUP256 **Affordable, Short Pulse Marx Modulator** – M.K. Kempkes (*Diversified Technologies, Inc.*), J.A. Casey, M.P.J. Gaudreau, R.A. Phillips (*Diversified Technologies, Inc.*)
- TUP257 **A Fast Extraction Kicker Power Supply for Main Injector** – C.C. Jensen (*Fermilab*), G.E. Krafczyk, S.R. Ward (*Fermilab*)
- TUP258 **Study of the Spiral Generator as a Pulsed Power Source** – C.M. Pogue (*NPS*), J.R. Harris, D.D. Snyder (*NPS*)
- TUP259 **A DSRD-based Modulator for the ATF2 Damping Ring Extraction Kicker** – A.L. Benwell (*SLAC*), R. Akre, C. Burkhart, A. Krasnykh, T. Tang (*SLAC*) A. Kardo-Sysoev (*IOFFE*)
- TUP260 **Premature Aging of Self-healing Metalized-film Capacitors under Partial Discharge Operation** – C. Burkhart (*SLAC*), M.A. Kemp, T. Tang (*SLAC*) G. Greiser (*CSI Technologies, Inc.*)
- TUP261 **The ILC P2 Marx and Application of the Marx Topology to Future Accelerators** – M.A. Kemp (*SLAC*), A.L. Benwell, C. Burkhart, R.S. Larsen, D.J. MacNair, K.J.P. Macken, M.N. Nguyen, J.J. Olsen (*SLAC*)
- TUP262 **Development and Construction of the Beam Dump for J-PARC Hadron Hall** – A. Agari (*KEK*), E. Hirose, M. Ieiri, Y. Katoh, M. Minakawa, R. Muto, M. Naruki, Y. Sato, S. Sawada, Y. Shirakabe, Y. Suzuki, H. Takahashi, M. Takasaki, K.H. Tanaka, A. Toyoda, H. Watanabe, Y. Yamanoi (*KEK*) H. Noumi (*RCNP*)
- TUP263 **Status of the UA9 Experiment** – W. Scandale (*CERN*) G. Cavoto (*INFN-Roma*)
- TUP264 **Thermo-Mechanical Design of a Tritium Gas Target** – B. Brajuskovic (*ANL*), R.J. Holt, T.P. O'Connor (*ANL*) J. Reneker (*Sandia National Laboratories*)
- TUP265 **A Solenoid Capture System for a Muon Collider** – H.G. Kirk (*BNL*), R.C. Fernow, N. Souchlas (*BNL*) X.P. Ding (*UCLA*) K.T. McDonald (*PU*)
- TUP266 **Beam Stop for an MEBT Chopper of a High Power Proton Linac at Fermilab** – S. Cheban (*Fermilab*), N.V. Mokhov, N. Solyak, I. Terechkin (*Fermilab*) V. Samulyak (*BNL*)



## Tuesday, March 29

- TUP267 **LANSCCE Drift Tube Linac Water Control System Refurbishment** – *P.S. Marroquin (LANL), J.D. Bernardin, J.G. Gioia, J.A. Ortiz (LANL)*
- TUP268 **TPS RF Transient Data Recorder for and Telephonic Alarm System** – *Y.-H. Lin (NSRRC)*
- TUP269 **Design and Analysis of SRF Cavities for Pressure Vessel Code Compliance** – *C.M. Astefanous (AES), J.P. Deacutis, D. Holmes, T. Schultheiss (AES) I. Ben-Zvi, W. Xu (BNL)*
- TUP270 **RF and Structural Analysis of the 72.75 MHz QWR for the ATLAS Upgrade** – *T. Schultheiss (AES), J. Rathke (AES) J.D. Fuerst, M.P. Kelly, P.N. Ostroumov (ANL)*
- TUP271 **CESR-Type SRF Cavity - Meeting the ASME Pressure Vessel Criteria by Analysis** – *T. Schultheiss (AES), J. Rathke (AES) V. Ravindranath, J. Rose, S. Sharma (BNL)*
- TUP272 **Analysis and Comparison to Test of AlMg3 Seals Near a SRF Cavity** – *T. Schultheiss (AES), C.M. Astefanous, M.D. Cole, D. Holmes, J. Rathke (AES) I. Ben-Zvi, D. Kayran, G.T. McIntyre, B. Sheehy, R. Than (BNL) A. Burrill (JLAB)*
- TUP273 **RF Thermal and Structural Analysis of the 60.625 MHz RFQ for the ATLAS Upgrade** – *T. Schultheiss (AES), J. Rathke (AES) A. Barcikowski, P.N. Ostroumov (ANL) D.L. Schrage (TechSource)*
- TUP274 **Oak Ridge National Laboratory Spallation Neutron Source Electrical Systems Availability and Improvements** – *R.I. Cutler (ORNL), D.E. Anderson, W.E. Barnett, J.D. Hicks, J.J. Mize, J. Moss, K. Norris, V.V. Peplov, K.R. Rust, J. T. Weaver (ORNL)*
- TUP275 **SNS Linac Modulator Operational History and Performance** – *V.V. Peplov (ORNL), D.E. Anderson, R.I. Cutler, M. Wezensky (ORNL) J.D. Hicks, R.B. Saethre (ORNL RAD)*
- TUP276 **Measurement of Thermal, Stress, and Field Dependencies of PBG Fiber Properties** – *R. Laouar (SLAC)*
- TUP277 **Status of the Spiral2 Single Bunch Selector Development** – *F. Consoli (INFN/LNS), A.C. Caruso, G. Gallo, D. Rifuggiato, E. Zappalà (INFN/LNS) M. Di Giacomo (GANIL)*
- TUP278 **Tuning Method for the  $2\pi/3$  Traveling Wave Structures** – *A.S. Setty (THALES)*

## Tuesday, March 29

- TUP279 **A CW RFQ Prototype** – *U. Bartz (IAP), A. Schempp (IAP)*
- TUP280 **Study and Analysis of the SF6 Byproducts of the FERMI@Elettra Pressurized Waveguide Components** – *C. Serpico (ELETTRA), R. Geometrante (ELETTRA)*
- TUP281 **Long Time-Delay Synchronizing Circuit of FEL** – *X.E. Wang (USTC/NSRL), Z.G. He, Q.K. Jia (USTC/NSRL)*
- TUP282 **The MICE Target** – *P.J. Smith (Sheffield University), C.N. Booth (Sheffield University)*
- TUP283 **Inductively Coupled, Compact HOM Damper for the Advanced Photon Source** – *G.J. Waldschmidt (ANL), D. Horan, L.H. Morrison (ANL)*
- TUP284 **AGS Tune Jump System to Cross Horizontal Depolarization Resonances** – *J.W. Glenn (BNL), L. A. Ahrens, Z. Altinbas, W. Fu, J.-L. Mi, S.P. Pontieri, P.J. Rosas, C. Theisen (BNL)*
- TUP285 **Versatile Device For In-Situ Multiple Coatings Of Long, Small Diameter Tubes** – *A. Hershcovitch (BNL), M. Blaskiewicz, J.M. Brennan, W. Fischer, C.J. Liaw, W. Meng, R.J. Todd (BNL) A.X. Custer, M.Y. Erickson, N.Z. Jamshidi, H.J. Poole (PVI) N. Sochugov (Institute of High Current Electronics)*
- TUP286 **Development and Testing of Carbon Fiber Vacuum Chamber Supports for NSLS-II** – *B.N. Kosciuk (BNL), C. Hetzel, V. Ravindranath, S. Sharma, O. Singh (BNL)*
- TUP287 **A Very Thin Vacuum Window for Radiobiology Studies with Heavy Ions at the BNL Tandem** – *P. Thieberger (BNL), H. Abendroth, L. Cannizzo, C. Carlson, L. Snydstrup (BNL)*
- TUP288 **A Very Thin Vacuum Window for Radiobiology Studies with Heavy Ions at the BNL Tandem** – *P. Thieberger (BNL), H. Abendroth, L. Cannizzo, C. Carlson, L. Snydstrup (BNL)*
- TUP289 **805 MHz Pillbox RF Cavity Upgrade for Muon Cooling** – *Y. Torun (IIT), D. Huang (IIT) A.D. Bross, A. Moretti (Fermilab) A. Kurup (Imperial College of Science and Technology, Department of Physics) D. Li, S.P. Virostek, M.S. Zisman (LBNL) J. Norem (ANL) R. B. Palmer (BNL) R.A. Rimmer (JLAB) D. Stratakis (UCLA) D.J. Summers (UMiss)*

## Tuesday, March 29

- TUP290 **Progress on MICE RFCC Module** – *D. Li (LBNL), A.J. DeMello, M.A. Green, S.P. Virostek, M.S. Zisman (LBNL) Y. Cao, S. Sun, L. Wang, L. Yin (SINAP) A.B. Chen, X.K. Liu, H. Pan, F.Y. Xu, S.X. Zheng (ICST)*
- TUP291 **Development of a Dielectric Loaded RF Cavity for a Muon Accelerator** – *K.D. French (MIT), W.A. Barletta (MIT) M. Popovic (Fermilab)*
- TUP292 **Modular 100 MeV to 1 GeV X-band Electron LINAC** – *T.S. Chu (SLAC) F.V. Hartemann (LLNL)*
- TUP293 **ESTB A New Beam Test Facility at SLAC** – *M.T.F. Pivi (SLAC), C. Hast (SLAC)*
- TUP294 **RF Tests of Absorber Materials at Cryogenic Temperatures** – *F. Marhauser (JLAB), T.S. Elliott (JLAB) E.P. Chojnacki (CLASSE)*
- TUP295 **Status of X-Band Fast Ferroelectric High Power Switch** – *S.V. Shchelkunov (Yale University, Beam Physics Laboratory) S.H. Gold (NRL) J.L. Hirshfield (Omega-P, Inc.) V.P. Yakovlev (Fermilab)*

## Wednesday, March 30

30-Mar-11 08:30 – 17:30

Westside Ballroom

### Wednesday Posters

#### Beam Dynamics and EM Fields

- WEP001 **Bunch Dynamics through Accelerator Column** –  
*R.A. Baartman (TRIUMF)*
- WEP002 **Overview of the Medium Energy Beam Transport Line of the Spiral2 Driver** – *M. Di Giacomo (GANIL), C. Barthe-Dejean, M. Duval, W. Le Coz, J.F. Leyge, P. Robillard (GANIL) P. Ausset (IPN) D. Uriot (CEA)*
- WEP003 **A New Correction Scheme to Compensate Depolarizing Imperfection Resonances at ELSA** – *O. Boldt (ELSA), A. Balling, F. Frommberger, W. Hillert (ELSA)*
- WEP004 **Crossing of Depolarizing Resonances in the Electron Stretcher Accelerator ELSA** – *W. Hillert (ELSA), A. Balling, O. Boldt, A. Dieckmann, F. Frommberger (ELSA)*
- WEP005 **Modeling the Low-Alpha-Mode at ANKA with the Accelerator Toolbox** – *M. Klein (KIT), N. Hiller, A. Hofmann, E. Huttel, V. Judin, B. Kehrer, S. Marsching, A.S. Mueller (KIT) K.G. Sonnad (CLASSE)*
- WEP006 **Study of Effects of Failure of RF Cavity & its Compensation in CW Superconducting Linac** – *A. Saini (University of Delhi), K. Ranjan (University of Delhi) C.S. Mishra, N. Solyak, V.P. Yakovlev (Fermilab)*
- WEP007 **Calculation of Acceptance of High Intensity Superconducting Proton Linac for Project-X** – *A. Saini (University of Delhi), K. Ranjan (University of Delhi) C.S. Mishra, N. Solyak, V.P. Yakovlev (Fermilab)*
- WEP008 **Beam Based Alignment of the Elettra Storage Ring** – *O. Ferrando (ELETTRA), A. Carniel, E. Karantzoulis (ELETTRA)*
- WEP009 **Lattice Model Calibrations for Tevatron and Booster Based on the Independent Component Analysis Techniques** – *K.V. Astrelina (BINP SB RAS) V.A. Lebedev, A. Valishev (Fermilab)*
- WEP010 **Design of the Bilbao Accelerator Low Energy Extraction Lines** – *I. Bustinduy (ESS Bilbao) Z. Izaola (ESS-Bilbao) J. Lucas (Elytt Energy)*

## Wednesday, March 30

- WEP011 **Low Energy Beam Transport Developments for the Bilbao Accelerator** – *I. Bustinduy (ESS Bilbao), D. de Cos (ESS Bilbao) J.J. Back (University of Warwick) J.-P. Carneiro (Fermilab) S. Jolly (Imperial College of Science and Technology, Department of Physics)*
- WEP012 **Multi-particle Tracking Simulations for the Bilbao Accelerator DTL** – *I. Bustinduy (ESS Bilbao), D. de Cos (ESS Bilbao) D. Fernandez-Cañoto, Z. Izaola (ESS-Bilbao)*
- WEP013 **Quantum Aspects of Accelerator Optics** – *S.A. Khan (SCOT)*
- WEP014 **Quantum Methodologies in Light Beam Optics** – *S.A. Khan (SCOT)*
- WEP015 **Initial Simulations of Electron/Ion Beam Optics for the EBIS Charge Breeder** – *C. Dickerson (ANL), S.A. Kondrashev, B. Mustapha (ANL) A.I. Pikin (BNL)*
- WEP016 **Dynamic Aperture Evaluation for the New RHIC 250 GeV Polarized Proton Lattice** – *X. Gu (BNL), W. Fischer, H. Huang, Y. Luo, S. Tepikian (BNL)*
- WEP017 **Re-examination of the NSLS-II Magnet Multipole Specifications** – *W. Guo (BNL)*
- WEP018 **Optics Error Measurements in the AGS for Polarized Proton Operation** – *V. Schoefer (BNL), L. A. Ahrens, K.A. Brown, J.W. Glenn, H. Huang (BNL)*
- WEP019 **Chromatic Beta-beating Measurement and Corrections** – *G. Wang (BNL), M. Bai, Y. Luo (BNL)*
- WEP020 **Status of RHIC Linear Optics Corrections using ac Dipole** – *G. Wang (BNL), M. Bai (BNL)*
- WEP021 **The Effect of Initial Energy Spread on Longitudinal Beam Modulations in an Electron Gun** – *C.P. Neuman (CUNY) P.G. O'Shea (UMD)*
- WEP022 **Status of Low Emittance Tuning at CesrTA** – *J.P. Shanks (CLASSE), M.G. Billing, R.E. Meller, M.A. Palmer, M.C. Rendina, N.T. Rider, D. L. Rubin, D. Sagan, C.R. Strohman, Y. Yanay (CLASSE)*
- WEP023 **Reduce Fermilab Booster Beam Loss Using New Corrector Magnets** – *C. Gong (Fermilab), E. Prebys (Fermilab)*
- WEP024 **Emittance Exchange Studies at the A0 Photoinjector** – *A.S. Johnson (Fermilab), A.H. Lumpkin, J. Ruan, R. Thurman-Keup (Fermilab)*

## Wednesday, March 30

- WEP025 **Optimization of Beam Optics for the Mu2e Experiment at Fermilab** – *C. Johnstone (Fermilab), A.I. Drozhdin, N.V. Mokhov, E. Prebys, I.L. Rakhno (Fermilab)*
- WEP026 **Half-Integer Extraction of Beams with Large Tune Spreads** – *J.A. Johnstone (Fermilab)*
- WEP027 **A Modular Optics Design for the LBNE Primary Proton Line** – *J.A. Johnstone (Fermilab)*
- WEP028 **Beam Line Extinction System for the Mu2e Experiment Based on AC Dipoles** – *E. Prebys (Fermilab), A.I. Drozhdin, C. Johnstone, N.V. Mokhov, I.L. Rakhno (Fermilab)*
- WEP029 **Transfer Line Design from the Recycler Ring to P150 Line for the Mu2e Project at Fermilab** – *M. Xiao (Fermilab) S. Jain (IMSA)*
- WEP030 **Direct Focusing Error Observation with Ring-wide TBT Beam Position Data** – *M.-J. Yang (Fermilab)*
- WEP031 **Low-Emittance Lattice Designs for Further ALS Brightness Upgrades** – *C. Sun (LBNL), H. Nishimura, D. Robin, C. Steier, W. Wan (LBNL)*
- WEP032 **Beam Transport in a Compact Dielectric Wall Accelerator for Proton Therapy** – *Y.-J. Chen (LLNL), D.T. Blackfield, G.J. Caporaso, S.D. Nelson, B. R. Poole (LLNL)*
- WEP033 **Using an Emittance Exchanger as a Bunch Compressor** – *B.E. Carlsten (LANL), K. Bishofberger, L. Duffy, Q.R. Marksteiner, S.J. Russell, N.A. Yampolsky (LANL)*
- WEP034 **Beam Masking and its Smearing due to ISR-Induced Energy Diffusion** – *N.A. Yampolsky (LANL), B.E. Carlsten (LANL)*
- WEP035 **Intense Sheet Electron Beam Transport in a Periodically Cusped Magnetic Field** – *P.B. Larsen (NRL), B. Levush, J.A. Pasour (NRL) T.M. Antonsen (UMD) A.T. Burke, J.J. Petillo (SAIC) K.T. Nguyen (Beam-Wave Research, Inc.)*
- WEP036 **Start-to-End Beam Dynamics Simulations for Fermilab's NML Electron Accelerator** – *C.R. Prokop (Northern Illinois University), P. Piot (Northern Illinois University) M.D. Church, Y.-E. Sun (Fermilab)*
- WEP037 **Longitudinal Beam Dynamics Optimization of Fermilab's NML Electron Accelerator** – *C.R. Prokop (Northern Illinois University), P. Piot (Northern Illinois University)*

## Wednesday, March 30

- WEP038 **Physics Design of a Prototype 2-Solenoid LEBT for the SNS Injector** – *B. Han (ORNL RAD), D.J. Newland (ORNL RAD) T. Hunter, M.P. Stockli (ORNL)*
- WEP039 **Tracking Stripped Proton Particles in SNS Ring Injection Momentum Dump Line** – *J. G. Wang (ORNL)*
- WEP040 **Analysis of Beam Trajectory Response of the SNS Superconducting Linac** – *Y. Zhang (ORNL), A.P. Shishlo (ORNL)*
- WEP041 **Weak Resonances Induced by Nonlinear Multipoles in a Quadrupole Doublet Lattice** – *Y. Zhang (ORNL), J. G. Wang (ORNL)*
- WEP042 **FACET Emittance Growth Studies** – *J.T. Frederico (SLAC), M.J. Hogan, Y. Nosochkov, T.O. Raubenheimer (SLAC)*
- WEP043 **Maximum Entropy Tomography on ECHO** – *J.T. Frederico (SLAC), T.O. Raubenheimer, D. Xiang (SLAC)*
- WEP044 **Emittance and Phase Space Exchange** – *D. Xiang (SLAC), A. Chao (SLAC)*
- WEP045 **Measurement and Manipulation of Beta Functions in the Fermilab Booster** – *M.J. McAteer (The University of Texas at Austin)*
- WEP046 **Further Analysis of Real Beam Line Optics From A Synthetic Beam** – *R.M. Bodenstein (JLAB), Y. Roblin, M.G. Tiefenback (JLAB)*
- WEP047 **Benchmarking GPT Against Direct Measurement of Transverse Emittance and Bunch Length** – *K.E.L. Surlis-Law (JLAB), A.S. Hofler, R. Kazimi (JLAB)*
- WEP048 **Comparison of RF Cavity Transport Models for BBU Simulations** – *I. Shin (University of Connecticut) S. Ahmed, T. Satogata, B.C. Yunn (JLAB)*
- WEP049 **BBU Experiment Plans for the 12 GeV Upgrade at Jefferson Lab** – *I. Shin (University of Connecticut) S. Ahmed, T. Satogata, B.C. Yunn (JLAB)*
- WEP050 **Advances in Modeling the University of Maryland Electron Ring** – *R.A. Kishek (UMD), B.L. Beaudoin, S. Bernal, M. Cornacchia, K. Fiuzza, I. Haber, T.W. Koeth, P.G. O'Shea, D.F. Sutter, H.D. Zhang (UMD)*
- WEP051 **A Particle-Core Model for Quasi-Homogeneous Charged Beams** – *R.P. Nunes (UFPel)*

## Wednesday, March 30

- WEP052 **Stability of Laser Pulses Propagating in Plasmas** – A. Bonatto (IF-UFRGS), R. Pakter, F.B. Rizzato (IF-UFRGS)
- WEP053 **Role of Relativistic Effects in Transverse Beam Dynamics** – F.B. Rizzato (IF-UFRGS), A. Endler, R. Pakter (IF-UFRGS) R.P. Nunes (UFPE)
- WEP054 **Cumulative (Single-Pass) Beam Break-Up Studies** – D. Kaltchev (TRIUMF)
- WEP055 **Mathematica Based TPSA Tools and Code** – D. Kaltchev (TRIUMF)
- WEP056 **Possible Ways to Increase the Beam Power of the J-PARC Main Ring above 700 kWatt** – A.Y. Molodzhentsev (KEK)
- WEP057 **Particle Correlations in an Ultrarelativistic Beam** – Zh.B. Seksembayev (ENU)
- WEP058 **Model of an Undulator with Electric Field Turned by an Angle** – Zh.B. Seksembayev (ENU)
- WEP059 **Enlarging Dynamic Aperture by Particle Swarm Algorithm** – Z. Bai (USTC/NSRL), W. Li, L. Wang (USTC/NSRL)
- WEP060 **Optimization of Transverse Motion in RFQ Channel** – D.A. Ovsyannikov (St. Petersburg State University), A.D. Ovsyannikov (St. Petersburg State University)
- WEP061 **Numerical Simulation of Electron Bunch Wake-field Stochastization due to Finite Plasma Dimensions** – O.M. Svystun (KhNU), M.O. Azarenkov (KhNU) V.I. Maslov, I.N. Onishchenko, A.M. Yegorov (NSC/KIPT)
- WEP062 **Optimized Sextupole Configurations for Sextupole Magnet Failure in Top-up Operation at the APS\*** – V. Sajaev (ANL)
- WEP063 **Tracking Particles Through A General Magnetic Field** – A. Xiao (ANL), M. Borland, L. Emery (ANL)
- WEP064 **Simulation Study of the IEX Device at the APS** – A. Xiao (ANL), M. Borland, L. Emery, M.S. Jaski, V. Sajaev (ANL)
- WEP065 **Multiobjective Dynamic Aperture Optimization at NSLS-II** – L. Yang (BNL), W. Guo, S. Krinsky, Y. Li (BNL)
- WEP066 **Tracking Code Development for Beam Dynamics Optimization** – L. Yang (BNL)
- WEP067 **Cornell ERL Start to End Simulations** – C.E. Mayes (CLASSE)



## Wednesday, March 30

- WEP068 **Crab Cavity Simulation in SPS** – *H.J. Kim (Fermilab), T. Sen (Fermilab)*
- WEP069 **Third Integer Resonant Slow Extraction from Debuncher** – *H.J. Kim (Fermilab), T. Sen (Fermilab)*
- WEP070 **Ring for Test of Nonlinear Integrable Optics** – *A. Valishev (Fermilab), S. Nagaitsev (Fermilab) V.V. Danilov (ORNL)*
- WEP071 **Resonance Extraction: Comparing Theory to Theory** – *L. Michelotti (Fermilab), J.E. Amundson, J.A. Johnstone, V.P. Nagaslaev, C.S. Park, S.J. Werkema (Fermilab)*
- WEP072 **Control of Chaotic Particle Motion using Adiabatic Thermal Beams** – *C. Chen (MIT), H. Wei (MIT)*
- WEP073 **Adiabatic Thermal Beam Equilibrium in Periodic Focusing Fields** – *C. Chen (MIT)*
- WEP074 **Correcting Aberrations in Complex Magnet Systems for Muon Cooling Channels** – *J.A. Maloney (Northern Illinois University) C.M. Ankenbrandt (Muons, Inc)*
- WEP075 **Kinetic Description of the Longitudinal Dynamics of Intense Charged Particle Beams with Strong Self-Fields** – *R.C. Davidson (PPPL), H. Qin, E. Startsev (PPPL)*
- WEP076 **Masking the Paul Trap Simulator Experiment (PTSX) Ion Source to Modify the Transverse Distribution Function and Study Beam Stability and Collective Oscillations** – *E.P. Gilson (PPPL), R.C. Davidson, P. Efthimion, R. M. Majeski, E. Startsev, H. Wang (PPPL) M. Dorf (LLNL)*
- WEP077 **Reduced Mathematical Model of Transverse Intra-Bunch Dynamics** – *C.H. Rivetta (SLAC), A. Bullitt, J.D. Fox, T. Mastorides, M.T.F. Pivi, O. Turgut (SLAC)*
- WEP078 **Evaluation of Limits and Performance of Feedback Control Systems Mitigating E-Cloud Driven Instability in the CERN SPS Accelerator.** – *C.H. Rivetta (SLAC), A. Bullitt, J.D. Fox, T. Mastorides, M.T.F. Pivi, O. Turgut (SLAC) J.M. Byrd, M.A. Furman, R. Secondo, J.-L. Vay, M. Venturini (LBNL) W. Höfle (CERN)*
- WEP079 **Mathematical Models of Feedback Systems for control of Intra-bunch Instabilities Driven by E-Clouds and TMCI** – *C.H. Rivetta (SLAC), A. Bullitt, J.D. Fox, T. Mastorides, M.T.F. Pivi, O. Turgut*

## Wednesday, March 30

(SLAC) *W. Höfle (CERN) R. Secondo, J.-L. Vay (LBNL)*

- WEP080 **Spin Tracking with GPUs to 250 GeV in RHIC Lattice** – *V.H. Ranjbar (Tech-X)*
- WEP081 **Characterization of Diffusion due to Beam-Beam Effects in Colliders** – *V.H. Ranjbar (Tech-X)*
- WEP082 **Beam Dynamics Simulations of Crab Cavity** – *S. Ahmed (JLAB), Y.S. Derbenev, G.A. Krafft, Y. Zhang (JLAB)*
- WEP083 **Computational Modeling of Electron Cloud for ELIC Design** – *S. Ahmed (JLAB), G.A. Krafft, B.C. Yunn (JLAB)*
- WEP084 **Beam Dynamics and Instabilities in ELIC Design** – *S. Ahmed (JLAB), G.A. Krafft, B.C. Yunn (JLAB)*
- WEP085 **Beam Breakup Studies for New Cryo-Unit** – *S. Ahmed (JLAB), E.E. Hannon, A.S. Hofler, R. Kazimi, G.A. Krafft, F. Marhauser, B.C. Yunn (JLAB) I. Shin (University of Connecticut)*
- WEP086 **Beam Dynamics Analysis Using SVD Method** – *S. Ahmed (JLAB), G.A. Krafft, Y. Roblin, M. Spata (JLAB)*
- WEP087 **Numerical Studies of Non-Linear Dynamics in BEP** – *I. Koop (BINP SB RAS), E. Perevedentsev (BINP SB RAS) T.V. Zolkin (University of Chicago)*
- WEP088 **Emittance Growth and Halo Formation in the Transport of Mismatched Beams** – *R. Pakter (IF-UFRGS), Y. Levin, T.N. Teles (IF-UFRGS)*
- WEP089 **Effects of a Painting Injection at the J-PARC RCS** – *H. Hotchi (JAEA/J-PARC)*
- WEP090 **Simulation Study of Intrabeam Scattering in Low Emittance Ring** – *W. Fan (USTC/NSRL), G. Feng, D.H. He, W. Li, L. Wang, S.C. Zhang (USTC/NSRL)*
- WEP091 **Implementation of H<sup>-</sup> Intrabeam Stripping into TRACK** – *J.-P. Carneiro (Fermilab) B. Mustapha, P.N. Ostroumov (ANL)*
- WEP092 **Space Charge Effect of the High Intensity Proton Beam during the Resonance Extraction for the MU2E Experiment at Fermilab** – *C.S. Park (Fermilab), J.F. Amundson, J.A. Johnstone, L. Michelotti, V.P. Nagaslaev, S.J. Werkema (Fermilab)*

## Wednesday, March 30

- WEP093 **Numerical Studies of Time-Dependent Space-Charge Fields and Beam Dynamics in X-Ray Undulators** – *C.S. Park (Fermilab) M. Hess (IUCEEM)*
- WEP094 **Space Charge Measurements with a High Intensity Bunch at the Fermilab Main Injector** – *K. Seiya (Fermilab), B. Chase, J.E. Dey, P.W. Joireman, I. Kourbanis (Fermilab)*
- WEP095 **Analysis of the Beam Loss Mechanism in the Project-X Linac** – *N. Solyak (Fermilab), J.-P. Carneiro, V.A. Lebedev, S. Nagaitsev, J.-F. Ostiguy (Fermilab)*
- WEP096 **Simulations of Space Charge in the Fermilab Main Injector** – *E.G. Stern (Fermilab), J.F. Amundson, P. Spentzouris (Fermilab)*
- WEP097 **Injection Painting into Fermilab Recycler Ring and Multi-turn Dynamics Studies for Project-X** – *L.G. Vorobiev (Fermilab), A.I. Drozhdin, D.E. Johnson, M. Xiao (Fermilab)*
- WEP098 **Formation of High Charge State Heavy Ion Beams with Intense Space Charge** – *P.A. Seidl (LBNL), J.-L. Vay (LBNL)*
- WEP099 **Sheet Beam Model for Intense Space-charge and Application to Debye Screening and Self-consistent Particle Oscillation Frequencies in Thermal Equilibrium Beams** – *S.M. Lund (LLNL) G. Bazouin (LBNL)*
- WEP100 **Energy Spread Compensation for Multi-Bunch Linac Operation Mode** – *D. Mihalcea (Northern Illinois University) W. Gai, J.G. Power (ANL)*
- WEP101 **Models and Experiments of Dispersion with Strong Space Charge** – *S. Bernal (UMD), B.L. Beaudoin, M. Cornacchia, K. Fiuza, I. Haber, R.A. Kishek, T.W. Koeth, P.G. O'Shea, M. Reiser, D.F. Sutter (UMD)*
- WEP102 **Current Dependent Tune Shifts in the University of Maryland Electron Ring** – *D.F. Sutter (UMD), B.L. Beaudoin, S. Bernal, M. Cornacchia, R.A. Kishek, T.W. Koeth, P.G. O'Shea, M. Reiser (UMD)*
- WEP103 **Ion Instability Study for the ILC 3 km Damping Ring** – *G.X. Xia (MPI-P)*
- WEP104 **Transverse Feedback System and Instability Suppression at HLS** – *J.H. Wang (USTC/NSRL), Y.B. Chen, W. Li, L. Liu, M. Meng, B. Sun, L. Wang, Y.L. Yang, Z.R. Zhou (USTC/NSRL)*

## Wednesday, March 30

- WEP105 **Broadband Impedance Model and Instability Threshold Estimate for HLS II Storage Ring** – *Q. Zhang (USTC/NSRL), W. Li, L. Wang (USTC/NSRL)*
- WEP106 **Reciprocity Relation for Beam Impedance** – *S. Krinsky (BNL)*
- WEP107 **CSR Shielding Experiment** – *V. Yakimenko (BNL), A.V. Fedotov, M.G. Fedurin, D. Kayran (BNL) V. Litvinenko (Stony Brook University) P. Muggli (USC)*
- WEP108 **Application of Coherent Tune Shift Measurements to the Characterization of Electron Cloud Growth** – *D.L. Kreinick (CLASSE), J.A. Crittenden, G. Dugan, Z. Leong, M.A. Palmer (CLASSE) M.A. Furman, M. Venturini (LBNL) R. Holtzapple (CalPoly)*
- WEP109 **Simulations of Electron Cloud Induced Instabilities and Emittance Growth for CesrTA** – *K.G. Sonnad (Cornell University), K.R. Butler (Cornell University) M.G. Billing, G. Dugan, M.A. Palmer, D. L. Rubin, D. Sagan (CLASSE) R. Holtzapple (CalPoly) M.T.F. Pivi (SLAC)*
- WEP110 **Electron Cloud Modeling for the ILC Damping Ring Lattice Designs** – *J.A. Crittenden (CLASSE), D. Sagan (CLASSE) K.G. Sonnad (Cornell University)*
- WEP111 **Beam Breakup in Dielectric Wakefield Accelerating Structures: Modeling and Experiments** – *P. Schoessow (Euclid TechLabs, LLC), C.-J. Jing, A. Kanareykin, A.L. Kustov (Euclid TechLabs, LLC) A. Altmark (LETI) W. Gai, J.G. Power (ANL)*
- WEP112 **Accurate Simulation of the Electron Cloud and Related Instrumentation in the Fermilab Main Injector with VORPAL: Update** – *P. Lebrun (Fermilab)*

### Sources and Medium Energy Accelerators

- WEP113 **Low-energy Run of Fermilab Electron Cooler's Beam Generation System** – *L.R. Prost (Fermilab), A.V. Shemyakin (Fermilab) A.V. Fedotov, J. Kewisch (BNL)*

### Beam Dynamics and EM Fields

- WEP114 **Transverse Instability of the Antiproton Beam In the Recycler Ring** – *L.R. Prost (Fermilab), C.M. Bhat, A.V. Burov, J.L. Crisp, N. Eddy, A.V. Shemyakin (Fermilab)*

### Sources and Medium Energy Accelerators

## Wednesday, March 30

WEP115 **The FNAL Injector Upgrade** – C.-Y. Tan (Fermilab), D.S. Bollinger, K.L. Duel, J.R. Lackey, W. Pellico (Fermilab)

### Beam Dynamics and EM Fields

WEP116 **Bucket Shaking Stops Bunch Dancing in Tevatron** – A.V. Burov (Fermilab), C.-Y. Tan (Fermilab)

WEP117 **Electron Cloud Studies in the Fermilab Main Injector using Microwave Transmission** – J.C.T. Thangaraj (Fermilab), N. Eddy, I. Kourbanis, K. Seiya, R.M. Zwaska (Fermilab)

WEP118 **Planned Experiments on the Princeton Advanced Test Stand** – A.D. Stepanov (PPPL), R.C. Davidson, E.P. Gilson, L. Grisham, I. Kaganovich (PPPL)

WEP119 **Coherent Synchrotron Radiation in Whispering Gallery Modes: Theory and Evidence** – R.L. Warnock (SLAC) J.C. Bergstrom (CLS)

WEP120 **Effect of Whispering Gallery Modes on Dynamics of Bursting CSR** – R.L. Warnock (SLAC)

WEP121 **Solution of the Vlasov Equation by a Quasi-Random Meshless Method: A Possible Route to Higher Dimensions** – R.L. Warnock (SLAC) J.A. Ellison, K.A. Heinemann (UNM)

WEP122 **Integrating the Vlasov Equation when Phase Space is Sparsely Populated** – R.L. Warnock (SLAC)

WEP123 **Study on Low-Frequency Oscillations in a Gyrotron Using a 3D CFDTD PIC Method** – M.C. Lin (Tech-X), D.N. Smithe (Tech-X)

WEP124 **Two Dimensional Effects on the CSR Interaction in a Bunch Compression Chicane** – R. Li (JLAB)

WEP125 **Higher-Order Spin Resonances in 2.1 GeV/c Polarized Proton Beam** – M.A. Leonova (University of Michigan, Spin Physics Center), J. Askari, K.N. Gordon, A.D. Krisch, J. Liu, D.A. Nees, R.S. Raymond, D.W. Sivers, V.K. Wong (University of Michigan, Spin Physics Center) E Hinterberger (Universität Bonn, Helmholtz-Institut für Strahlen- und Kernphysik) V.S. Morozov (JLAB)

WEP126 **Progress in Experimental Study of Current Filamentation Instability** – B.A. Allen (USC), P. Mugli, A. Seyedi (USC) M. Babzien, M.G. Fedurin, K. Kusche, V. Yakimenko (BNL) C. Huang (LANL) J.L. Martins, L.O. Silva (GoLP) W.B. Mori (UCLA)

WEP127 **Motion of Particle in Plane Monochromatic Linear Polarized Electro Magnetic Field in Arbitrary System** – D.A. Zakaryan (YSU)

## Wednesday, March 30

- WEP128 **Motion of Particle in Plane Monochromatic Elliptic Polarized Electro Magnetic Field in General Case.** – *D.A. Zakaryan (YSU), D.K. Kalantaryan (YSU)*
- WEP129 **Radiation From Extended Objects and Covariant Regularization of Acceleration Fields** – *M. Quattromini (ENEA C.R. Frascati), L. Giannessi (ENEA C.R. Frascati)*
- WEP130 **Simulation Study of Transverse Spectrum in HIRFL-CSR** – *P. Li (IMP), L.J. Mao, J.W. Xia, J.C. Yang, X.D. Yang, D.Y. Yin, Y.J. Yuan (IMP)*
- WEP131 **A New Approach to Calculation of the Transport Matrix in RF cavities** – *Y.I. Eidelman (BINP SB RAS) N.V. Mokhov, S. Nagaitsev, N. Solyak (Fermilab)*
- WEP132 **Simulation of the Dark Current Generation and Transportation for the NML Linac** – *Y.I. Eidelman (BINP SB RAS) N.V. Mokhov, S. Nagaitsev, G.V. Romanov, N. Solyak (Fermilab)*
- WEP133 **Adaptive Space-charge Meshing in the General Particle Tracer Code** – *S.B. van der Geer (Pulsar Physics) M.J. Loos, O.J. Luiten, S.B. van der Geer G. Pöplau, U. van Rienen (Rostock University, Faculty of Computer Science and Electrical Engineering)*
- WEP134 **Depolarization and Beam-beam Effects at Future Electron-Positron Linear Colliders** – *I.R. Bailey (Cockcroft Institute) I.R. Bailey A.F. Hartin (DESY) G.A. Moortgat-Pick (University of Hamburg)*
- WEP135 **Using VORPAL to Simulate Collimator Wakefields** – *J.D.A. Smith (TXUK) P. Stoltz (Tech-X)*
- WEP136 **Modelling of the EMMA ns-FFAG Injection Line and Ring Using GPT** – *R.T.P. D'Arcy (UCL) D.J. Holder (The University of Liverpool) B.D. Muratori (STFC/DL/ASTeC)*
- WEP137 **Performance Analysis on BG/P for Wakefield Calculations** – *M. Min (ANL)*
- WEP138 **Developing Software Packages for Electromagnetic Simulations** – *J. Xu (ANL), M. Min, B. Mustapha (ANL)*
- WEP139 **Comparison of 1D and 2D CSR Models with Application to the LCLS Bunch Compressors** – *G. Bassi (BNL) J.A. Ellison, K.A. Heinemann (UNM)*

## Wednesday, March 30

- WEP140 **Synchrotron Radiation Damping Simulations Based on Stepwise Ray-tracing** – *F Meot (BNL)*
- WEP141 **Spin Tracking Simulations for the AGS with ZGOUBI** – *F Meot (BNL), H. Huang, W.W. MacKay, T. Roser (BNL)*
- WEP142 **Electron Cloud Modeling Results for Time-resolved Shielded Pickup Measurements at Cesium** – *J.A. Crittenden (CLASSE), Y. Li, X. Liu, M.A. Palmer, J.P. Sikora (CLASSE) S. Calatroni, G. Rumolo (CERN) N. Omcikus (UCLA)*
- WEP143 **Error Studies for the FRIB Linac** – *Q. Zhao (FRIB), F. Marti, M.J. Syphers, J. Wei, X. Wu, R.C. York (FRIB) M. Doleans (NSCL) J. Qiang (LBNL)*

### Sources and Medium Energy Accelerators

- WEP144 **Study of the DTL Based on Room Temperature IH Resonator as an Alternative to the Beta=0.041 Superconducting Quarter-Wave Resonator for FRIB Linac** – *Q. Zhao (FRIB), F. Marti, E. Pozdeyev, M.J. Syphers, J. Wei, X. Wu, R.C. York (FRIB) J.H. Billen, K.R. Crandall, J. Stovall, L.M. Young (Affiliation Request Rejected) O.K. Kester (NSCL)*

### Beam Dynamics and EM Fields

- WEP145 **A Comparison of the Particle Beam Simulation Codes IonEx, PBGUNS, and IGUN/EGUN** – *L. Grubert (Far-Tech, Inc.), N. Barov, B. Cluggish, E.G. Evstati, S. Galkin, J.S. Kim, L. Zhao (Far-Tech, Inc.)*
- WEP146 **A Quasi-3D Model of Electron Cyclotron Resonance Ion Source (ECRIS)** – *L. Zhao (Far-Tech, Inc.), B. Cluggish, J.S. Kim (Far-Tech, Inc.)*
- WEP147 **The Effect of Space-charge and Wake Fields in Fermilab Booster** – *A. Macridin (Fermilab), J.F. Amundson, P. Spentzouris (Fermilab)*
- WEP148 **Development and Benchmarking of a Novel Grid Based Space-Charge Field Solver** – *M. Hess (IUCF) A. Kodgire, A. Yoga (IUCEEM) C.S. Park (Fermilab)*
- WEP149 **The Emittance Evaluation of ALPHA** – *T.H. Luo (IUCF) Y.C. Jing, S.-Y. Lee (IUCEEM)*
- WEP150 **GPU for Particle Tracking** – *K. Song (LBNL), S. James, H. Nishimura, C. Sun (LBNL)*
- WEP151 **HPC in the Public Cloud** – *S. James (LBNL), H. Nishimura, K. Song, C. Sun (LBNL)*

## Wednesday, March 30

- WEP152 **Parallel Optimization of Beam-beam Effects in High Energy Colliders** – *J. Qiang (LBNL), R.D. Ryne (LBNL)*
- WEP153 **Simulated Performance of an FIR-Based Feedback System to Control the Electron Cloud Single-Bunch Transverse Instabilities in the CERN SPS** – *R. Secondo (LBNL), M.A. Furman, J.-L. Vay, M. Venturini (LBNL) J.D. Fox, C.H. Rivetta (SLAC) W. Höfle (CERN)*
- WEP154 **Direct Numerical Modeling of E-cloud Driven Instability of a Bunch Train in the CERN SPS, and its Mitigation using a Feedback Model** – *J.-L. Vay (LBNL), J.M. Byrd, M.A. Furman, R. Secondo, M. Venturini (LBNL) J.D. Fox, C.H. Rivetta (SLAC) W. Höfle (CERN)*
- WEP155 **Electromagnetic Simulation of Beam Transport Insensitivity of Dielectric Wall Accelerators to Blumlein Arcs** – *D.T. Blackfield (LLNL), Y.-J. Chen, S.D. Nelson, B. R. Poole (LLNL)*
- WEP156 **GPU-Accelerated 3D Time-Domain Simulation of RF Fields and Particle Interactions** – *S.J. Cooke (NRL), B. Levush, A.N. Vlasov (NRL) T.M. Antonsen (UMD) I.A. Chernyavskiy (SAIC)*
- WEP157 **An Implementation of the Fast Multipole Method for High Accuracy Particle Tracking of Intense Beams** – *E.W. Nissen (Northern Illinois University), B. Erdelyi (Northern Illinois University)*
- WEP158 **High Accuracy Electron Beam Model Development in MICHELLE-eBEAM** – *S.G. Ovtchinnikov (SAIC), C. Kostas, M.M. Mkrtchyan, J.J. Petillo, R. Shtokhamer (SAIC) S.J. Cooke, B. Levush, A.N. Vlasov (NRL)*
- WEP159 **Improved Algorithms for Multipacting Simulation in the Analyst Code** – *J.F. DeFord (STAAR/AWR Corporation), B.L. Held (STAAR/AWR Corporation)*
- WEP160 **Inclusion of Surface Roughness Effects in Emission Modeling With the MICHELLE Code** – *J.F. DeFord (STAAR/AWR Corporation) N.J. Dionne, J.J. Petillo (SAIC)*
- WEP161 **Modeling and Simulations of Electron Emission from Diamond-Amplified Cathodes** – *D.A. Dimitrov (Tech-X), R. Busby, J.R. Cary, D.N. Smithe (Tech-X) I. Ben-Zvi, X. Chang, T. Rao, J. Smedley, E. Wang, Q. Wu (BNL)*



## Wednesday, March 30

- WEP162 **Modeling of Diamond Based Devices for Beam Diagnostics** – *D.A. Dimitrov (Tech-X), R. Busby (Tech-X) I. Ben-Zvi, J.W. Keister, T. Rao, J. Smedley (BNL) E.M. Muller (Stony Brook University)*
- WEP163 **RF Cavity Characterization with VORPAL** – *C. Nieter (Tech-X), C. Roark, P. Stoltz, C.D. Zhou (Tech-X) F. Marhauser (JLAB)*
- WEP164 **Accelerating Beam Dynamics Simulations with GPUs** – *I.V. Pogorelov (Tech-X), K. Amyx, P. Messmer (Tech-X)*
- WEP165 **Advanced Modeling of TE Microwave Diagnostics of Electron Clouds** – *S.A. Veitzer (Tech-X), D.N. Smithe, P. Stoltz (Tech-X)*
- WEP166 **Embedded Boundary Method for RF Power Source Simulations with VORPAL** – *C.D. Zhou (Tech-X)*
- WEP167 **Numerical Simulations of Beam-Beam Effects in the Proposed Electron-Ion Collider at Jefferson Lab** – *B. Terzic (JLAB), R. Li, Y. Zhang (JLAB) C. Jarvis (Macalester) M. Kramer (UCB) J. Qiang (LBNL)*
- WEP168 **Matching Index Technique for Avoiding HOM Resonance in Accelerators; INDUS-2 Accelerator as a Case Study** – *V. Jain (RRCAT), S.C. Joshi (RRCAT) U.V. Bhandarkar (IIT) S. Krishnagopal (BARC)*
- WEP169 **Suppression of Leakage Fields from DC Magnets in J-PARC 3GeV RCS.** – *M. Yoshimoto (JAEA/J-PARC)*
- WEP170 **HOM Analysis and HOM Coupler Design of the IHEP 9-cell Low Loss Cavity** – *T.X. Zhao (IHEP Beijing), J. Gao, Z.Q. Li, J.Y. Zhai (IHEP Beijing)*
- WEP171 **A New Type of the Choke-mode Cavity** – *H. Fan (USTC/NSRL)*
- WEP172 **Calculations of CH Superconducting Cavity** – *X.F. Tian (USTC/NSRL)*
- WEP173 **Numerical Calculations for the SR Characteristics Obtained in Terms of Quantum Theory: The Case of Weakly Excited Particles.** – *A.N. Bourimova (Tomsk State University) V.G. Bagrov (Institute of High Current Electronics)*
- WEP174 **Simulations and Calculations of Cavity-to-cavity Coupling for Elliptical SCRF Cavities in ESS** – *R. Ainsworth (Royal Holloway, University of London), S. Molloy (Royal Holloway, University of London)*

## Wednesday, March 30

- WEP175 **Impedance Analysis of the NSLS-II Injection Straight Section** – *A. Blednykh (BNL), M.J. Ferreira, B.N. Kosciuk, I. Pinayev, T.V. Shafitan (BNL)*
- WEP176 **Loss Factor of Tapered Structures for Short Bunches** – *A. Blednykh (BNL), S. Krinsky (BNL)*
- WEP177 **Radial Transmission Line Analysis of Multi-layer Beam Tubes** – *H. Hahn (BNL), L.R. Hammons (BNL)*
- WEP178 **Electromagnetic Field Measurement of Fundamental and Higher-order Modes for 7-cell Cavity of PETRA-II** – *Y. Kawashima (BNL)*
- WEP179 **Calculating Point-Charge Wakefields from Finite Length Bunch Wake-Potentials** – *B. Podobedov (BNL) G.V. Stupakov (SLAC)*
- WEP180 **Improved Electromagnetic Modelling of Arbitrary Smooth Dielectric Boundaries** – *C.A. Bauer (CIPS), G.R. Werner (CIPS) J.R. Cary (Tech-X)*
- WEP181 **Backward Coherent Radiation in Insertion Devices** – *A.A. Mikhailichenko (CLASSE)*
- WEP182 **Study of the Propagation of Transverse Electric (TE) Wave Propagation through Electron Clouds and External Magnetic Fields.** – *K.G. Sonnad (CLASSE), J.A. Crittenden, R.M. Schwartz, J.P. Sikora (CLASSE) S.A. Veitzer (Tech-X)*
- WEP183 **On the Mathematical Aspects of Cherenkov Radiation Generation in Dielectric Loaded Waveguides of Various Geometries** – *S. Baturin (LETT), D.A. Semikin (LETT) A. Kanareykin (Euclid Tech-Labs, LLC)*
- WEP184 **Cerenkov Radiator Driven by a Superconducting RF Electron Gun** – *B. R. Poole (LLNL) W.B. Colson, J.R. Harris (NPS)*
- WEP185 **Properties of Longitudinally Uniform Microwave Beam Waveguide** – *Y.W. Kang (ORNL) R. Kustom, R. Nassiri (ANL)*
- WEP186 **Wake Potentials in the ILC Interaction Region** – *A. Novokhatski (SLAC)*
- WEP187 **Simulation and Optimization of Project-X Main Injector Cavity** – *L. Xiao (SLAC), C.-K. Ng (SLAC) J.E. Dey, I. Kourbanis, Z. Qian (Fermilab)*

### Sources and Medium Energy Accelerators

- WEP188 **Study of the Effects of Using a Collimating Aperture on a Photoinjector Beam** – *J.T. Moody (UCLA), R.K. Li, P. Musumeci, C.M. Scoby (UCLA)*

### Beam Dynamics and EM Fields

## Wednesday, March 30

- WEP189 **Compression and Synchronization of Ultra-Short Electron Beam using THz Undulator Interaction** – *J.T. Moody (UCLA), R.K. Li, P. Musumeci, C.M. Scoby (UCLA)*
- WEP190 **Magnetic Field Expansion Out of a Plane: Application to Cyclotron Development** – *T. Hart (UMiss), D.J. Summers (UMiss) K. Paul (Tech-X)*
- WEP191 **The Application of Wavelet Analysis in HLS Bunch-by-bunch System** – *Y.B. Chen (USTC/NSRL)*
- WEP192 **Simulation Results for a Cavity BPM Design for the APS Storage Ring** – *X. Sun (ANL), G. Decker (ANL)*
- WEP193 **Correlation, Comparison, and Analysis of AGS Last Turn and RHIC First Turn Bunch by Bunch WCM Data** – *M.P. Menga (BNL), L. A. Ahrens, J.M. Brennan, R.C. Lee (BNL)*
- WEP194 **Measurement Techniques to Characterize Instabilities Caused by Electron Clouds** – *M.G. Billing (CLASSE), G. Dugan, R.E. Meller, M.A. Palmer, J.P. Sikora (CLASSE) R. Holtzapple (CalPoly) K.G. Sonnad (Cornell University)*
- WEP195 **Time Resolved Measurement of Electron Clouds at CEsrTA Using Shielded Pickups** – *J.P. Sikora (CLASSE), M.G. Billing, J.A. Crittenden, M.A. Palmer (CLASSE) S. De Santis (LBNL)*
- WEP196 **Single – Shot Longitudinal Phase Space Measurement Diagnostics Beamline Status at Argonne Wakefield Accelerator** – *M.M. Rihaoui (Northern Illinois University), P. Piot (Northern Illinois University) W. Gai, J.G. Power (ANL)*
- WEP197 **Performance of Multi-Harmonic RF Feedforward System for Beam Loading Compensation in the J-PARC RCS** – *F. Tamura (JAEA/J-PARC), M. Nomura, A. Schnase, T. Shimada, M. Yamamoto (JAEA/J-PARC) K. Hara, C. Ohmori, M. Tada, M. Yoshii (KEK/JAEA) K. Hasegawa (KEK)*
- WEP198 **Longitudinal Beam Stability Study with a Storage Ring FEL and a Longitudinal Feedback System** – *W. Wu (FEL/Duke University), J.Y. Li, S.F. Mikhailov, V. Popov, Y.K. Wu (FEL/Duke University) D. Teytelman (Dimtel)*
- WEP199 **Estimation of Ecloud and TMCI Driven Vertical Instability Dynamics from SPS MD Measurements - Implications for Feedback Control** – *J.D. Fox (SLAC), A. Bullitt, G. Ndabashimiye,*

## Wednesday, March 30

*C.H. Rivetta, O. Turgut (SLAC) W. Höfle, B. Salvant (CERN) R. Secondo (LBNL)*

### Sources and Medium Energy Accelerators

- WEP200 **The High-Energy Storage Ring** – *R. Maier (FZJ)*
- WEP201 **Status of NSLS-II Booster Project** – *S.M. Gurov (BINP SB RAS) T.V. Shaftan (BNL)*
- WEP202 **First EBIS Ions in the RHIC Injector Accelerators** – *C.J. Gardner (BNL), L. A. Ahrens, J.G. Alessi, E.N. Beebe, K.A. Brown, M. Harvey, L.T. Hoff, N.A. Kling, G.J. Marr, J. Morris, D. Raparia, F. Severino, T.C. Shrey, K. Smith, P. Thieberger, K. Zeno (BNL)*
- WEP203 **Performance Goals and Limitations for the NSLS-II Injector** – *T.V. Shaftan (BNL)*
- WEP204 **A Proton Driver Scenario** – *D.V. Neuffer (Fermilab), L.J. Jenner (Fermilab) J. Pasternak (STFC/RAL)*
- WEP205 **A Gap Clearing Kicker for Fermilab Main Injector** – *I. Kourbanis (Fermilab), P. Adamson, J. Biggs, B.C. Brown, D. Capista, C.C. Jensen, G.E. Krafczyk, D.K. Morris, K. Seiya, S.R. Ward, G.H. Wu, M.-J. Yang (Fermilab)*
- WEP206 **An Accumulator/Pre-Booster for the Medium-Energy Electron Ion Collider at JLab** – *B. Erdelyi (Northern Illinois University), S. Abeyratne (Northern Illinois University) Y.S. Derbenev, G.A. Krafft, Y. Zhang (JLAB) S.L. Manikonda, P.N. Ostroumov (ANL)*
- WEP207 **Progress Towards A Novel Compact High Voltage Electrostatic Accelerator** – *P. Beasley (Siemens AG, Healthcare Technology and Concepts), O. Heid (Siemens AG, Healthcare Technology and Concepts)*
- WEP208 **Design of an Antiproton Recycler Ring** – *A.I. Papash (MPI-K) O. Karamyshev (JINR/DLNP) G.A. Karamysheva, A.I. Papash H. Knudsen (Aarhus University) M.R.F. Siggel-King (The University of Liverpool) C.P. Welsch (Cockcroft Institute)*
- WEP209 **Reliability Study of the AIRIX Induction Accelerator over a Functioning Period of Ten Years (2000-2010)** – *H. Dzitko (CEA), A. Georges, B. Gouin (CEA)*
- WEP210 **Low Energy Beam Measurements Using PHIL Accelerator at LAL, Comparison with PARMELA Simulations.** – *J. Brossard (LAL)*

## Wednesday, March 30

- WEP211 **Emittance Measurements with Tomographic Reconstruction PITZ** – G. Asova (DESY Zeuthen), H.-J. Grabosch, Ye. Ivanisenko, M. Krasilnikov, M. Mahgoub, A. Oppelt, M. Otevreil, B. Petrosyan, S. Rimjaem, F. Stephan, M. Tanha, G. Vashchenko (DESY Zeuthen) L. Hakobyan, M.A. Khojoyan (YerPhI) D. Richter (HZB) J. Saisut (Chiang Mai University)
- WEP212 **Development Of A 325 MHz 4-Rod RFQ** – B. Koubek (IAP), A. Schempp (IAP)
- WEP213 **New Development of the RFQ Beam Matching Section** – N. Mueller (IAP), M. Baschke (IAP)
- WEP214 **Tuning Studies On 4-Rod RFQs** – J.S. Schmidt (IAP), A. Schempp (IAP)
- WEP215 **High Power Tests for the TRASCO RFQ** – E. Fagotti (INFN/LNL), L. Antoniazzi, M. Comunian, F. Grespan, A. Palmieri, A. Pisent, C. Roncolato (INFN/LNL)
- WEP216 **High Power Test Bench for the TRASCO RFQ Coupler** – E. Fagotti (INFN/LNL), L. Antoniazzi, M. Comunian, F. Grespan, A. Palmieri, A. Pisent, C. Roncolato (INFN/LNL)
- WEP217 **High Efficiency Visible Photocathode Development** – J. Smedley (BNL), I. Ben-Zvi, T. Rao (BNL) H.A. Padmore, T. Vecchione (LBNL)
- WEP218 **Diamond: Photocathode and Electron Amplifier** – J. Smedley (BNL), I. Ben-Zvi, X. Chang, J. Rameau, T. Rao, E. Wang, Q. Wu (BNL) E.M. Muller (Stony Brook University)
- WEP219 **FRIB Front End** – E. Pozdeyev (FRIB), M.J. Johnson, M. Leitner, E. Tanke, J. Wei, X. Wu, R.C. York, Q. Zhao (FRIB) D. Leitner, G. Machicoane, F. Marti, L.T. Sun (NSCL) M.J. Syphers (MSU)
- WEP220 **Development of the Dual-Slot Resonance Linac** – D.J. Newsham (Far-Tech, Inc.), N. Barov, R.H. Miller (Far-Tech, Inc.)
- WEP221 **CW Room - Temperature Bunching Cavity for the Project X MEBT** – G.V. Romanov (Fermilab), S. Barbanotti, J.A. Coghill, I.G. Gonin, T.M. Page, N. Solyak, V.P. Yakovlev (Fermilab)
- WEP222 **Low Energy 6D Beam Diagnostic for APEX, the LBNL VHF Photo-injector** – D. Filippetto (LBNL), M.J. Chin, C.W. Cork, S. De Santis, J. Feng, C. F. Papadopoulos, G.J. Portmann, F. Sannibale, J.W. Staples, M.E. Stuart, R.P. Wells, M.S. Zolotarev (LBNL) M.A. Prantil (LLNL)

## Wednesday, March 30

- WEP223 **Preliminary Design and Analysis of the Project X CW RFQ** – *S.P. Virostek (LBNL), M.D. Hoff, D. Li, J.W. Staples (LBNL)*
- WEP224 **Operational Status and Life Extension Plans for the Los Alamos Neutron Science Center (LAN-SCE)** – *J.L. Erickson (LANL), D. Rees (LANL)*
- WEP225 **H-Mode Accelerating Structures with PMQ Focusing for Low-Beta Beams** – *S.S. Kurennoy (LANL), J.F. O'Hara, E.R. Olivas, L. Rybarczyk (LANL)*
- WEP226 **Results of the Commissioning of the ReA3 RFQ at MSU** – *E. Tanke (FRIB), F. Marti, J. Popielarski, J. Wei, X. Wu, Q. Zhao (FRIB) C. Benatti, M. Doleans, L.J. Dubbs, S.W. Krause, A. Lapiere, D. Leitner, P.S. Miller, D. Morris, G. Perdikakis, M. Portillo, R. Rencsok, D.P. Sander-son, S. Schwarz, N.R. Usher, J.J. Vincent (NSCL) O.K. Kester (GSI)*
- WEP227 **Studies of Lattice Beams** – *J.E. Spencer (SLAC), R.J. Noble (SLAC)*
- WEP228 **Effect of Transverse Electron Velocities on the Longitudinal Cooling Force in the Fermilab Electron Cooler** – *A. Khilkevich (BSU) L.R. Prost, A.V. Shemyakin (Fermilab)*
- WEP229 **Status of the 2 MeV Electron Cooler for COSY/HESR** – *J. Dietrich (FZJ), V. Kamerdzhev (FZJ) M.I. Bryzgunov, A.D. Goncharov, V.V. Parkhom-chuk, V.B. Reva, D.N. Skorobogatov (BINP SB RAS)*
- WEP230 **Study of a RFQ Beam Cooler for the SPES project** – *M.M. Maggiore (INFN/LNL)*
- WEP231 **TRIUMF Cyclotron Beam Quality Improve-ment** – *I.V. Bylinskii (TRIUMF), R.A. Baartman, F.W. Bach, Y.-N. Rao, L.W. Root, R. Ruegg (TRI-UMF)*
- WEP232 **A Multi Megawatt Ring Cyclotron to Search for CP Violation in the Neutrino Sector** – *L. Cal-abretta (INFN/LNS), M.M. Maggiore, D. Rifug-giato (INFN/LNS) L.A.C. Piazza (INFN/LNL)*
- WEP233 **Lattice Optimization and Particle Tracking of Helium Ion FFAG Accelerator** – *H.L. Luo (USTC/NSRL), H. Hao, X.Q. Wang, Y.C. Xu (USTC/NSRL)*
- WEP234 **Longitudinal Dynamics Simulations and Mea-surements in the EMMA ns-FFAG** – *J.M. Gar-land (UMAN), H.L. Owen (UMAN) B.D. Muratori (STFC/DL/ASTeC)*

## Wednesday, March 30

- WEP235 **Progress of the LBNL 88-inch Cyclotron High-voltage Injection Upgrade** – *K. Yoshiki Franzen (LBNL), J.Y. Benitez, P.W. Casey, A. Hodgkinson, M. Kireeff Covo, C.M. Lyneis, L. Phair, P. Pipersky (LBNL) D. Leitner (FRIB)*
- WEP236 **Preliminary Study on a Compact High Field Superconducting Isochronous Cyclotron K250-42** – *J. Zhang (MIT/PSFC), T.A. Antaya, R.E. Block (MIT/PSFC)*
- WEP237 **The Oak Ridge Isochronous Cyclotron Refurbishment Project** – *A.J. Mendez (ORNL), J.B. Ball, D. Dowling, B.A. Tatum (ORNL)*
- WEP238 **IFMIF Prototype Accelerator - Objectives and Plans** – *Ch. Vermare (IFMIF/EVEDA), P. Garin (IFMIF/EVEDA) P.-Y. Beauvais, A. Mosnier (CEA) Ph. Cara, R. Heidinger (Fusion for Energy) A. Facco, A. Pisent (INFN/LNL) A. Ibarra (CIEMAT) H. Kimura, S. O'hira, Y. Okumura (JAEA)*
- WEP239 **High Power Proton Linac Front-end: Beam Dynamics Investigation and Plans for the ESS** – *A. Ponton (ESS)*
- WEP240 **Progress in Loss Control for High Intensity Operation of the Fermilab Main Injector** – *B.C. Brown (Fermilab), P. Adamson, D. Capista, I. Kourbanis, D.K. Morris, K. Seiya, G.H. Wu, M.-J. Yang (Fermilab)*
- WEP241 **Beam Dynamics Simulations and Measurements at the Project X Test Facility** – *E. Gianfelice-Wendt (Fermilab), V.E. Scarpine, R.C. Webber (Fermilab)*
- WEP242 **Project X Functional Requirements Specification** – *S.D. Holmes (Fermilab), S. Henderson, R.D. Kephart, J.S. Kerby, C.S. Mishra, S. Nagaitsev, R.S. Tschirhart (Fermilab)*
- WEP243 **Status of the Neutralized Drift Compression Experiment (NDCX-II)** – *W.L. Waldron (LBNL), J.W. Kwan (LBNL)*
- WEP244 **Growth and Characterization of Multi-alkali Photocathodes for Cornell ERL Injector** – *L. Cultrera (CLASSE), I.V. Bazarov, J.V. Conway, B.M. Dunham, Y. Li, X. Liu, K.W. Smolenski (CLASSE) S.S. Karkare, J.M. Maxson (Cornell University)*
- WEP245 **Optimization of DC Photogun Electrode Geometry** – *J.M. Maxson (Cornell University) I.V. Bazarov, B.M. Dunham, K.W. Smolenski (CLASSE)*

## Wednesday, March 30

- WEP246 **System Engineering of the FRIB Driver Linac** – *M. Leitner (FRIB), C. Compton, W. Hartung, M.J. Johnson, D. Leitner, F. Marti, J. Popielarski, E. Pozdeyev, M.J. Syphers, E. Tanke, J. Wei, J. Weisend, X. Wu, A. Zeller, Q. Zhao (FRIB)*
- WEP247 **FRIB Rare Isotope Beam Production and Separation** – *M. Hausmann (FRIB), A.M. Amthor, L.L. Bandura, G. Bollen, W. Mittig, M. Portillo, R.M. Ronningen, M. Schein, B.M. Sherrill (FRIB) T. Burgess, J.R. DeVore, V.B. Graves (ORNL) D.J. Morrissey, C. Wilson (NSCL)*
- WEP248 **Overview of the LBNE Neutrino Beam** – *C.D. Moore (Fermilab), Y. He, P. Hurh, J. Huyen, M.W. McGee, J.R. Mizek, N.V. Mokhov, V. Papadimitriou, R.K. Plunkett, R.P. Schultz, G. Velev, K.E. Williams, R.M. Zwaska (Fermilab)*
- WEP249 **Intense Muon Beams for Rare-Process Experiments at Project X** – *C.M. Ankenbrandt (Muons, Inc), R.P. Johnson, C. Y. Yoshikawa (Muons, Inc) V.S. Kashikhin, D.V. Neuffer (Fermilab) J. Miller (BUphy) R.A. Rimmer (JLAB)*
- WEP250 **Radiation Transport Studies in Support of FRIB Conceptual and Preliminary Design** – *M. A. Kostin (FRIB), G. Bollen, D. Georgobiani, R. Roberts, R.M. Ronningen (FRIB)*
- WEP251 **Design Studies of Pre-Boosters of Different Circumference for an Electron Ion Collider at JLab** – *S. Abeyratne (Northern Illinois University), B. Erdelyi (Northern Illinois University) S.L. Manikonda (ANL)*
- WEP252 **Neutrons Photo-Produced at the Daphne Beam Test Facility: the n@BTF Project** – *L. Quintieri (INFN/LNF), R. Bedogni, B. Buonomo, M. De Giorgi, A. Esposito, G. Mazzitelli (INFN/LNF) P. Valente (INFN-Roma)*
- WEP253 **Inductive Output Tube Gated Emission Modeling Development in the MICHELLE Code** – *J.J. Petillo (SAIC), I.A. Chernyavskiy, C. Kostas, E.M. Nelson, S.G. Ovtchinnikov, J. N. P. Panagos (SAIC) J.F. DeFord, B.L. Held (STAAR/AWR Corporation) B. Levush, J.A. Pasour, A.N. Vlasov (NRL) L.D. Ludeking (ATK) K.T. Nguyen, E.L. Wright (Beam-Wave Research, Inc.)*
- WEP254 **Simulation of H<sup>-</sup> Beam Chopping in a Solenoid-based Low-energy Beam Transport (LEBT)** – *D.T. Abell (Tech-X), D.L. Bruhwiler, Y. Choi, P. Stoltz (Tech-X) B. Han (ORNL RAD) M.P. Stockli (ORNL)*



## Wednesday, March 30

- WEP255 **An Accel-Accel-Decel Extraction System for TRIUMF H<sup>-</sup> Cusp Ion Source** – K. Jayamanna (TRIUMF), G. Cojocaru (TRIUMF)
- WEP256 **Laser-Proton Acceleration as Compact Ion Source** – S. Busold (TU Darmstadt), K. Harres, F. Nürnberg, M. Roth (TU Darmstadt) W.A. Barth, O. Boine-Frankenheim, I. Hofmann (GSI) T.J. Burris-Mog, T.E. Cowan (FZD) M. Kaluza (IOQ) U. Ratzinger (IAP) B. Zielbauer (HIJ)
- WEP257 **Spectroscopic Estimation Of Plasma Parameters For ECR Ion Source In The Intense 14-MeV Neutron Generator Being Developed at IPR** – S. Banerjee (Institute for Plasma Research), M. Abhangi, T.K. Basu, J. Ghosh, S.C. Jakhar, N. Ramaiya, C.V.S. Rao, S.J. Vala (Institute for Plasma Research) P. Mehta (Pandit Deendayal Petroleum University)
- WEP258 **Study of the Exit Radial-matching Section of RFQ Study of the Exit Radial-matching Section of RFQ** – C. Xiao (IMP), Y. He (IMP)
- WEP259 **Test Stand for BLISI, an Off Resonance Microwave Proton Source** – S. Djekic (ESS-Bilbao), D. Cortazar, J. Feuchtwanger, H. Hassanzadegan, A. Megia Macias, J.L. Munoz, I. Rueda, A. Vizcaino (ESS-Bilbao) F.J. Bermejo (Bilbao, Faculty of Science and Technology) I. Bustinduy, D. Fernandez-Cañoto, D. de Cos (ESS Bilbao) M.A. Carrera, J.H. Galipienzo (AVS) V. Etxebarria, J. Jugo, J. Portilla (University of the Basque Country, Faculty of Science and Technology) J. Lucas (Elytt Energy)
- WEP260 **Development of EBIS Charge Breeder for Rare Isotopes at CARIBU** – S.A. Kondrashev (ANL), C. Dickerson, A. Levand, P.N. Ostroumov, R.C. Pardo, G. Savard, R.C. Vondrasek (ANL) J.G. Alessi, E.N. Beebe, A.I. Pikin (BNL) M.A. Batazova, G.I. Kuznetsov (BINP SB RAS)
- WEP261 **Performance of the New EBIS Preinjector** – J.G. Alessi (BNL), E.N. Beebe, S. Binello, C.J. Gardner, O. Gould, L.T. Hoff, R.F. Lambiase, V. LoDestro, R. Lockey, M. Mapes, A. Mc Nerney, M. Okamura, A. Pendzick, D. Phillips, A.I. Pikin, D. Rapparia, J. Ritter, J. Scaduto, L. Smart, L. Snyderstrup, C. Theisen, M. Wilinski, A. Zaltsman (BNL) U. Ratzinger, A. Schempp (IAP)
- WEP262 **Experimental Study of the RHIC EBIS Performance** – E.N. Beebe (BNL), J.G. Alessi, R.F. Lambiase, R. Lockey, M. Okamura, A.I. Pikin, D. Rapparia, J. Ritter, L. Snyderstrup (BNL)

## Wednesday, March 30

- WEP263 **A Multiple Cathode Design for the eRHIC Polarized Electron Source** – X. Chang (BNL), I. Ben-Zvi, J. Kewisch, V. Litvinenko, A.I. Pikin, V. Ptitsyn, T. Rao, B. Sheehy, J. Skaritka, Q. Wu (BNL) E. Wang (PKU/IHIP) T. Xin (Stony Brook University)
- WEP264 **Laser Ion Source With Long Pulse Width For RHIC-EBIS** – K. Kondo (BNL), M. Okamura (BNL) T. Kanesue (Kyushu University, Department of Applied Quantum Physics and Nuclear Engineering)
- WEP265 **Design Study of an Injector for iRCMS** – M. Okamura (BNL), J.G. Alessi, E.N. Beebe, K. Kondo, D. Raparia (BNL)
- WEP266 **Direct Plasma Injection Scheme with 1m Solenoid Magnet** – M. Okamura (BNL), K. Kondo (BNL) T. Kanesue (Kyushu University)
- WEP267 **Average Number of Foil Traversal: An Analytical Approach** – D. Raparia (BNL)
- WEP268 **Emittance and Loss control at 200 MeV linac at BNL** – D. Raparia (BNL), J.G. Alessi, B. Briscoe, J.M. Fite, O. Gould, V. LoDestro, M. Okamura, J. Ritter, A. Zelenski (BNL)
- WEP269 **Preliminary Design Study of the Front-end System for Project X** – D. Li (LBNL), M.D. Hoff, Q. Ji, A. Ratti, T. Schenkel, J.W. Staples, S.P. Virostek (LBNL) S. Nagaitsev, G.V. Romanov, R.C. Webber, V.P. Yakovlev (Fermilab)
- WEP270 **A High Current Density Li<sup>+</sup> Alumino-Silicate Ion Source for Target Heating Experiments** – P.K. Roy (LBNL), W.G. Greenway, J.W. Kwan, P.A. Seidl, W.L. Waldron (LBNL)
- WEP271 **Development of a Permanent-Magnet Microwave Ion Source for a Sealed-Tube Neutron Generator** – O. Waldmann (LBNL), B.A. Ludewigt (LBNL)
- WEP272 **Performance Improvements in a Cesium Surface Converter H<sup>-</sup> Ion Source** – E. Chacon-Golcher (LANL), E.G. Geros, K.F. Johnson, R. Keller, G. Rouleau, L. Rybarczyk, J. Stelzer (LANL) O.A. Tarvainen (JYFL)
- WEP273 **Progress RF H<sup>-</sup> Ion Source with Saddle Antenna** – V.G. Dudnikov (Muons, Inc), R.P. Johnson (Muons, Inc) S. Murray, T.R. Pennisi, M. Santana, M.P. Stockli, R.F. Welton (ORNL)
- WEP274 **Broadband Antenna Matching Network for SNS Ion Source** – K.R. Shin (ORNL RAD) A.E. Fathy (University of Tennessee) Y.W. Kang, M.F. Piller (ORNL)

## Wednesday, March 30

- WEP275 **Highly-Persistent SNS H<sup>-</sup> Source Fueling 1-MW Beams with 10 kC Lifetimes** – *M.P. Stockli (ORNL), T.W. Hardek, Y.W. Kang, S.N. Murray, T.R. Pennisi, M.F. Piller, M. Santana, R.F. Welton (ORNL) B. Han (ORNL RAD)*
- WEP276 **Development of a New Barium Ion Source for a Laser-Induced-Fluorescence (LIF) Diagnostic on the Paul Trap Simulator Experiment (PTSX)** – *H. Wang (PPPL), R.C. Davidson, P. Efthimion, E.P. Gilson, R. M. Majeski (PPPL)*
- WEP277 **Operational Findings and Upgrade Plans on the Superconducting Electron Accelerator S-DALINAC** – *F. Hug (TU Darmstadt), C. Burandt, J. Conrad, R. Eichhorn, M. Kleinmann, M. Konrad, T. Kuerzeder, P. Nonn, S.T. Sievers (TU Darmstadt)*
- WEP278 **Conceptual Design of Independently Tunable Cells RF Gun with External Injecting Structure** – *J.J. Liang (USTC/NSRL)*
- WEP279 **Improvements on the Design of an Ultra-Low Emittance Injector for a Future X-ray FEL Oscillator** – *X.W. Dong (ANL), K.-J. Kim (ANL)*
- WEP280 **Development of an Ultra-Low-Emittance RF Photo-Injector for a Future X-Ray FEL Oscillator** – *X.W. Dong (ANL), K.-J. Kim, A. Zholents (ANL)*
- WEP281 **Experimental Studies of a High-Brightness Elliptic Electron Gun** – *T.M. Bemis (Beam Power Technology, Inc.), C. Chen, M.H. Lawrence, J.Z. Zhou (Beam Power Technology, Inc.)*
- WEP282 **Design of the NSLS-II Linac Front End Test Stand** – *R.P. Fliller (BNL), M. Johanson, M. Lucas, J. Rose, T.V. Shaftan (BNL)*
- WEP283 **Simulations of Transverse Stacking in the NSLS-II Booster** – *R.P. Fliller (BNL), T.V. Shaftan (BNL)*
- WEP284 **Performance Study of K<sub>2</sub>CsSb Cathode in DC Gun** – *T. Rao (BNL), J. Smedley (BNL) J. McCarter, M. Poelker (JLAB)*
- WEP285 **New Concepts for Advanced Dual Mode Thermionic RF Gun** – *Y. Kim (IAC), D.P. Wells (IAC) A.W. Hunt (ISU)*
- WEP286 **APEX Project Phase I Status and Plans and Activities for Phase II.** – *F. Sannibale (LBNL), B.J. Bailey, K.M. Baptiste, J.M. Byrd, A.L. Catalano, D. Colomb, C.W. Cork, J.N. Corlett, S. De Santis, L.R. Doolittle, J. Feng, D. Filippetto, D. Garcia Quintas, G. Huang, R. Kraft, S. Kwiatkowski, D. Li,*

## Wednesday, March 30

*W.E. Norum, H.A. Padmore, C. F. Papadopoulos, G.J. Portmann, S. Prestemon, J. Qiang, J.W. Staples, M.E. Stuart, T. Vecchione, W. Wan, R.P. Wells, M.S. Zolotarev (LBNL) M. J. Messerly, M.A. Prantil (LLNL) M. Yoon (POSTECH)*

**WEP287 DC High Voltage Field Emission Measurements of Niobium Electrodes** – *M. BastaniNejad (Old Dominion University) P.A. Adderley, J. Clark, S. Covert, J. Hansknecht, C. Hernandez-Garcia, R. Mammei, M. Poelker (JLAB)*

**WEP288 Optimizing the CEBAF Injector for Beam Operation with a Higher Voltage Electron Gun** – *F.E. Hannon (JLAB), A.S. Hofler, R. Kazimi (JLAB)*

**WEP289 The Impact of Laser Polarization in Multiphoton Photoemission from a Copper Cathode** – *R.K. Li (UCLA), J.T. Moody, P. Musumeci, C.M. Scoby, H.L. To, M.T. Westfall (UCLA)*

**WEP290 A Novel Electron Gun for Off-axis Beam Injection** – *Yu.A. Kubyshin (UPC) A.V. Aloe, N.I. Pakhomov, V.I. Shvedunov (MSU)*

**WEP291 Beam Optics of the Injection and Extraction of the iRCMS Synchrotron** – *N. Tsoupas (BNL), D. Trbojevic, W. Zhang (BNL)*

**WEP292 Extraction and Transport for a 2+ Megawatt Proton Beam** – *S.C. Childress (Fermilab), A.Z. Chen, A.I. Drozhdin, S. Hays, J.A. Johnstone, G.M. Koizumi, P.W. Lucas, V. Papadimitriou, G. Velev, G.L. Vogel, M. Wendt, K.E. Williams (Fermilab)*

**WEP293 Design and Fabrication of the Lithium Beam Ion Injector for NDCX-II** – *J.H. Takakuwa (LBNL)*

**WEP294 Field Emission Endpoint Energy Measurements in a CW Normal-conducting RF Injector** – *D.C. Nguyen (LANL), G.O. Bolme, C.E. Heath, FL. Krawczyk, S. Kwon, P.S. Marroquin, R.C. McCrady, N.A. Moody, M.S. Prokop, W. Roybal, T.L. Tomei, W.M. Tuzel, T. Zaugg (LANL)*

**WEP295 Status of Laser Stripping at the SNS Project** – *T.V. Gorlov (ORNL), A.V. Aleksandrov, V.V. Danilov, J. Galambos (ORNL) D.E. Johnson (Fermilab) Y. Liu (ORNL RAD)*

**WEP296 Effects of Errors of Velocity Tilt on Maximum Longitudinal Compression During Neutralized Drift Compression of Intense Beam Pulses** –

## Wednesday, March 30

*I. Kaganovich (PPPL), R.C. Davidson, E. Startsev (PPPL) A. Friedman (LLNL) S. Massidda (Columbia University)*

**WEP297 A Conceptual Design of the 2+ MW LBNE Beam Absorber** – *G. Velez (Fermilab), S.C. Childress, P. Hurh, J. Hylan, A.V. Makarov, N.V. Mokhov, C.D. Moore, I. Novitski (Fermilab)*

**WEP298 Targetry for the Long Baseline Neutrino Experiment** – *R.M. Zwaska (Fermilab)*

**Thursday Posters**

Applications of Accelerators, Tech Transfer, Industry

THP001 **Hybrid Electron Linac based on Magnetic Coupled Accelerating Structure** – *S.V. Kutsaev (MEPhI), K.I. Nikol'skiy, N.P. Sobenin (MEPhI)*

THP002 **Re-Circulated Inverse Compton Scattering X-ray Source for Industrial Applications** – *A.Y. Murokh (RadiaBeam), R.B. Agustsson, S. Boucher, P. Frigola, A.G. Ovodenko, M. Ruelas, R. Tikhoplav (RadiaBeam) M. Babzien, T.V. Shaf-tan, V. Yakimenko (BNL) I. Jovanovic (Penn State University)*

Light Sources and FELs

THP003 **High Power THz FEL Source Based on FFAG Be-tatron** – *A.Y. Murokh (RadiaBeam) S. Reiche (PSI)*

THP004 **Radially-Polarized CO<sub>2</sub> Laser Assisted Photoemission** – *A.Y. Murokh (RadiaBeam) J.B. Rosen-zweig (UCLA)*

Applications of Accelerators, Tech Transfer, Industry

THP005 **High Power Cyclotron Complex for Neutron Production** – *Yu.G. Alenitsky (JINR), A.A. Glazov, G.A. Karamysheva, S.A. Kostromin, E. Samsonov (JINR) S.N. Dolya, L.M. Onischenko, S.B. Vorozhtsov, N.L. Zaplatin (JINR/DLNP)*

THP006 **Status of High Current R&D Energy Recovery Linac at Brookhaven National Laboratory** – *D. Kayran (BNL), Z. Altinbas, D.R. Beavis, I. Ben-Zvi, R. Calaga, D.M. Gassner, H. Hahn, L.R. Hammons, A.K. Jain, J.P. Jamilkowski, N. Laloudakis, R.F. Lambiase, D.L. Lederle, V. Litvinenko, G.J. Mahler, G.T. McIntyre, W. Meng, B. Oerter, D. Pate, D. Phillips, J. Reich, T. Roser, C. Schultheiss, B. Sheehy, T. Srinivasan-Rao, R. Than, J.E. Tuozzolo, D. Weiss, W. Xu, A. Zaltsman (BNL) T. Satogata (JLAB)*

Light Sources and FELs

THP007 **FEL Potential of eRHIC** – *V. Litvinenko (BNL), I. Ben-Zvi, Y. Hao, C.C. Kao, D. Kayran, J.B. Murphy, V. Ptitsyn, T. Roser, D. Trbojevic, N. Tsoupas (BNL)*

Applications of Accelerators, Tech Transfer, Industry

THP008 **Status of the SIEMENS Particle Therapy Accelerators** – *H. Rohdjess (Siemens Med), O. Chubarov, S. Emhofer, S. Göller, C.M. Kleffner, V.L. Lazarev, M. Leghissa, A. Robin, R. Rottenbach, A.C. Sauer, R. Schedler, B. Steiner, J. Tacke, T. Uhl, P. Urschütz,*

## Thursday, March 31

*U. Weinrich, O. Wilhelmi (Siemens Med) H.K. Andersen, M. Budde, F. Bødker, J.S. Gretlund, H.B. Jeppesen, C.V. Nielsen, C.G. Pedersen, Ka.T. Therkildsen, S.V. Weber (Siemens DK) M.T. Maier, D. Ondreka, P. Schuett (GSI)*

- THP009 Collimator Design of 15 MeV Linear Accelerator Based Thermal Neutron Source for Radiography** – *B.J. Patil (University of Pune), V.N. Bhoraskar, S.D. Dhole (University of Pune) S.T. Chavan, R. Krishnan, S.N. Pethe (SAMEER) A.J. Patil (DANA)*
- THP010 Optimization of Dual Scattering Foil for 6 to 20 MeV Electron Beam Radiotherapy** – *B.J. Patil (University of Pune), V.N. Bhoraskar, S.D. Dhole (University of Pune) S.T. Chavan, R. Krishnan, S.N. Pethe (SAMEER)*
- THP011 Phase Contrast Imaging Using a Single Picosecond X-ray Pulse of the Inverse Compton Source at the BNL Accelerator Test Facility** – *M. Carpinelli (Università di Sassari and INFN) P. Delogu, M. Endrizzi (INFN-Pisa) B. Golosio, P. Oliva (INFN-Cagliari) I. Pogorelsky, V. Yakimenko (BNL) J.B. Rosenzweig, O. Williams (UCLA)*
- THP012 Development of Imaging Techniques for Medical Accelerators in the QUASAR Group** – *C.P. Welsch (Cockcroft Institute), T. Cybulski (Cockcroft Institute) R. Boll, S. Sellner, S. Tegami (MPI-K) M. Holzscheiter (UNM) C.P. Welsch*
- THP013 Non-Scaling FFAG Proton Therapy Accelerator with Permanent Magnets** – *D. Trbojevic (BNL)*
- THP014 Carbon/Proton Non-Scaling FFAG Isocentric Gantries for Cancer Therapy** – *D. Trbojevic (BNL)*
- THP015 Lattice Design of a Rapid Cycling Medical Synchrotron for Carbon/Proton Therapy** – *D. Trbojevic (BNL), N. Tsoupas (BNL) N.M. Cook (Stony Brook University) S. Peggs (ESS) T. Sato-gata (JLAB)*
- THP016 Design of an Achromatic and Uncoupled Medical Gantry for Radiation Therapy** – *N. Tsoupas (BNL), D. Kayran, V. Litvinenko, W.W. MacKay (BNL)*
- THP017 Experimental Activities in Support of Commercial U.S. Accelerator Production of Mo-99** – *G.E. Dale (LANL), H. T. Bach, C.E. Heath, C.T. Kelsey, R.C. McCrady, E.R. Olivas, F.P. Romero, K.A. Woloshun (LANL) S. Chemerisov, P. Tkac,*

## Thursday, March 31

*G.F. Vandegrift (ANL) J.T. Harvey (NorthStar Medical Radiosotopes)*

- THP018 **Compact Linac for Proton Therapy** – *A.D. Yeremian (SLAC)*
- THP019 **Swift Heavy Ion Induced Effects in Calcium Fluoride Thin Films** – *R.K. Pandey (AU), A.C. Pandey (AU)*
- THP020 **Effects of 6MeV Electron Irradiation on Zinc Oxide Nanoparticles Synthesized by Microwave Method** – *S.D. Dhole (University of Pune), V.N. Bhoraskar, K.B. Sapnar, V. Sisodia (University of Pune) K.M. Garadkar, L..A. Ghule (Shivaji University, Nanomaterials Research Laboratory)*
- THP021 **Experimental Efforts to Obtain Low Secondary Electron Yield Materials in Particle Accelerator** – *M. Comisso (INFN/LNF), R. Cimino, T. Demma, D. R. Grosso, V. Nistor (INFN/LNF) R. Larciprete (ISM-CNR)*
- THP022 **The Use of Micro-Synchrotron Radiation X-Ray Fluorescence for Studies on Gold and Copper Provenance of Romanian Prehistoric Objects** – *B. Constantinescu (IFIN)*
- THP023 **Upgrade of Output Ion Beam Channel at ITEP Heavy Ion RFQ for Imitation Experiments for Reactor Materials Investigation** – *B.B. Chalykh (ITEP), A. Aleev, G. Kropachev, R.P. Kuibeda, T. Kulevoy, S.V. Rogozhkin, A.I. Semennikov (ITEP)*
- THP024 **Investigation of Failure Mechanisms in Niobium-Encapsulated Gallium Targets for the Production of Germanium-68 Radioisotope Irradiated with 100 MeV Proton Beam** – *H. T. Bach (LANL), T.N. Clayton, J.E. Hunter, K.D. John, C.T. Kelsey, F.M. Nortier, E.R. Olivas, F.O. Valdez (LANL)*
- THP025 **A Cooled Generalized Multiple Target System to Create Positrons for a Compact Tunable Intense Gamma Ray Source** – *C. Y. Yoshikawa (Muons, Inc), C.M. Ankenbrandt (Muons, Inc) A. Afanasev (Hampton University) D.V. Neuffer (Fermilab)*
- THP026 **Continuously Time-Resolved MeV UED with Sub-100 Femtoseconds Temporal Resolution** – *R.K. Li (UCLA), J.T. Moody, P. Musumeci, C.M. Scoby, H.L. To, M.T. Westfall (UCLA)*
- THP027 **Status and Development of a Proton FFAG Accelerator at KURRI for ADSR Study** – *Y. Kuriyama (KURRI), Y. Ishi, J.-B. Lagrange,*



## Thursday, March 31

*Y. Mori, R. Nakano, T. Planche, T. Uesugi, E. Yamakawa (KURRI) Y. Niwa, K. Okabe, I. Sakai (University of Fukui, Faculty of Engineering)*

- THP028 **The Optimum of the Proton Source for ADS** – *B. Li (USTC/NSRL), C.-F. Wu (USTC/NSRL)*
- THP029 **Conceptual Design of the Proton Beam Window for ADS-driven Subcritical Reactor** – *J.J. Tian (USTC/NSRL), X.Q. Wang, H.L. Wu (USTC/NSRL)*
- THP030 **GEANT4 Studies of the Thorium Fuel Cycle** – *C. Bungau (Manchester University) R.J. Barlow (UMAN) A. Bungau, R. Cywinski (University of Huddersfield)*
- THP031 **Concept for 1 GeV, 10 MW Superconducting Proton Linac for ADS** – *P.N. Ostroumov (ANL)*
- THP032 **Comparison of Accelerator Technologies for use in ADSS** – *W.-T. Weng (BNL), M. Todosow (BNL) P.M. McIntyre (Texas A&M University)*
- THP033 **Fermilab Project-X Nuclear Energy Application: Accelerator, Spallation Target and Transmutation Technology Demonstration** – *C.S. Mishra (Fermilab), D.E. Johnson, T.R. Johnson (Fermilab) M.Y.A. Gohar (ANL)*
- THP034 **Multi-GeV High-Current SRF Linacs for Very Large Power Stations** – *R.P. Johnson (Muons, Inc), C.M. Ankenbrandt (Muons, Inc) M. Popovic (Fermilab)*
- THP035 **Flux-coupled Cyclotron Stack IV: Superconducting Sector Magnet and Cryogenics** – *P.M. McIntyre (Texas A&M University), A.D. McInturff, A. Sattarov (Texas A&M University)*
- THP036 **Flux-coupled Stack of Isochronous Cyclotrons II: Injection Strategy** – *P.M. McIntyre (Texas A&M University), A. Sattarov (Texas A&M University) D. Raparia (BNL)*
- THP037 **Design of an e-g Converter for a 10 MeV Electron Beam** – *L. Auditore (INFN - Gruppo Messina), D. Loria, E. Morgana (INFN - Gruppo Messina) L. Auditore, R.C. Barnà, A. Trifirò, M. Trimarchi (Università di Messina) G. Di Bella (Università di Messina, Facoltà di Ingegneria)*
- THP038 **Development of Laser Compton Scattering X-ray Source in the Basis of Compact Electron Linac** – *R. Kuroda (AIST), E. Miura, H. Toyokawa, K. Yamada, E. Yamaguchi (AIST) M. Kumaki (RISE)*

## Thursday, March 31

- THP039 **Development of a High-Power THz-TDS System on the Basis of a Compact Electron Linac** – *M. Kumaki (RISE), K. Sakaue (RISE) R. Kuroda, K. Yamada (AIST)*
- THP040 **Evaluation of Transient Radiation Effects on CMOS ICs using the Pulsed Gamma-Ray Generator and the TCAD Simulation** – *S. Oh (KAERI), N.H. Lee (KAERI) H.H. Lee (Chungnam National University)*
- THP041 **Particle Dynamics Simulation in Wobbler System for Hollow High Energy Heavy Ion Beam Formation** – *S. Minaev (ITEP), N.N. Alexeev, A. Golubev, G. Kropachev, T. Kulevoy, B.Y. Sharkov, A. Sitnikov, T. Tretyakova (ITEP)*
- THP042 **Power Injection Test of Wobbler Cell Prototype for Hollow High Energy Heavy Ion Beam Formation** – *V.G. Kuzmichev (ITEP), B.B. Chalykh, A. Golubev, A.M. Kozodaev, T. Kulevoy, S. Minaev, A. Sitnikov, Yu. Stasevich (ITEP)*
- THP043 **High-Performance Accelerators for FELs and Security Applications** – *A.M.M. Todd (AES), H. Bluem, V. Christina, D. Dowell, K. Jordan, J.H. Park, J. Rathke, L.M. Young (AES)*
- THP044 **Linear Accelerator Design Study with Direct Plasma Injection Scheme for Warm Dense Matter** – *K. Kondo (BNL), M. Okamura, D. Raporaria (BNL) K. Horioka (TIT) T. Kaneshue (Kyushu University, Department of Applied Quantum Physics and Nuclear Engineering)*
- THP045 **Proposed Facility Layout for MaRIE** – *J.A. O'Toole (LANL), M.J. Bodelson, J.L. Erickson, R.W. Garnett, M.S. Gulley (LANL)*
- THP046 **miPIC Simulation of a SRF Gun using a 3D Numerical Code** – *E. Wang (PKU/IHIP) I. Ben-Zvi (BNL) J. Wang (CST of America)*
- THP047 **W-Band Sheet Beam Mod-Anode Gun Design Using MICHELLE** – *A.T. Burke (SAIC)*
- THP048 **Radiation and Thermal Analysis of Production Solenoid for Mu2e Experimental Setup** – *V.S. Pronskikh (Fermilab), V. Kashikhin, N.V. Mokhov (Fermilab)*
- THP049 **Design of the SR Interferometer for Beam Size Measurement at HLS** – *L.L. Tang (USTC/NSRL), L.M. Gu, P. Lu, B. Sun, J.G. Wang, Y.Y. Xiao (USTC/NSRL)*
- THP050 **NCRF X-Band Deflecting Cavity Fabrication and Validation** – *R.B. Agustsson (RadiaBeam)*

## Thursday, March 31

- THP051 **An Overview of Normal Conducting Radio Frequency Projects and Manufacturing Capabilities at Radiabeam Technologies.** – *R.B. Agustsson (Radiabeam)*
- THP052 **The Main Magnet Power Supply of the Ion Rapid Cycling Medical Synchrotron** – *I. Marneris (BNL), E.M. Bajon, R.F. Lambiase, J. Sandberg, S. Savatteri, D. Trbojevic, N. Tsoupas (BNL)*
- THP053 **The New Approximation of Dose Attenuation Curve in Concrete** – *M. Petrichenkov (BINP SB RAS), V.Ya. Chudaev (BINP SB RAS)*

### Colliders

- THP054 **Medium Energy Heavy Ion Operations at RHIC** – *K.A. Drees (BNL), M. Bai, I. Blackler, K.A. Brown, D. Bruno, A.V. Fedotov, W. Fischer, D.M. Gassner, M. Harvey, T. Hayes, R.L. Hulsart, A.K. Jain, N.A. Kling, M. Lafky, R.C. Lee, Y. Luo, W.W. MacKay, G.J. Marr, A. Marusic, R.J. Michnoff, M.G. Minty, C. Montag, C. Naylor, V. Ptitsyn, T. Satogata, V. Schoefer, F. Severino, T.C. Shrey, K. Smith, S. Tepikian, D. Trbojevic, N. Tsoupas (BNL)*
- THP055 **Status of RHIC Head-on Beam-beam Compensation Project** – *W. Fischer (BNL), M. Anerella, E.N. Beebe, D. Bruno, D.M. Gassner, X. Gu, R.C. Gupta, J. Hock, A.K. Jain, R.F. Lambiase, C. Liu, Y. Luo, W.W. MacKay, M. Mapes, C. Montag, B. Oerter, M. Okamura, A.I. Pikin, D. Raparia, Y. Tan, R. Than, J.E. Tuozzolo, W. Zhang (BNL)*
- THP056 **Near Real-time ORM Measurements and SVD Matrix Generation for 10 Hz Global Orbit Feedback In RHIC** – *C. Liu (BNL), R.L. Hulsart, W.W. MacKay, A. Marusic, K. Mernick, R.J. Michnoff, M.G. Minty (BNL)*

### Light Sources and FELs

- THP057 **Optimal Focusing for a Linac-based Hard X-ray Source** – *C. Liu (BNL) G.A. Krafft (JLAB) R.M. Talman (CLASSE)*

### Colliders

- THP058 **The Effects of Phase Advances on Beam-beam and its Compensation in RHIC** – *Y. Luo (BNL), W. Fischer, X. Gu, C. Montag, S. Tepikian (BNL)*
- THP059 **Chromatic Analysis and Possible Local Chromatic Correction in RHIC** – *Y. Luo (BNL), W. Fischer, X. Gu, D. Trbojevic (BNL)*
- THP060 **RHIC 12x150 A Current Lead Temperature Control Design and Implementation** – *C. Mi (BNL), D. Bruno, S.C. Ciro, A. Di Lieto, G. Ganetis,*

## Thursday, March 31

*K. Hamdi, G. Heppner, W. Louie, J. Sandberg,  
C. Schultheiss, J.E. Tuozzolo (BNL)*

**THP061 Mimicking Bipolar Sextupole Power Supplies for Low-energy Operations at RHIC** – *C. Montag (BNL), D. Bruno, A.K. Jain, G. Robert-Demolaize, T. Satogata (BNL)*

**THP062 Beam Experiments Related to the Head-on Beam-beam Compensation Project at RHIC** – *C. Montag (BNL), M. Bai, K.A. Drees, W. Fischer, G. Wang (BNL)*

**THP063 Lattice Design for Head-on Beam-beam Compensation at RHIC** – *C. Montag (BNL)*

**THP064 The Dipole Corrector Magnets for the RHIC Global Orbit Feedback System** – *P. Thieberger (BNL), L. Arnold, C. Folz, R.L. Hulsart, A.K. Jain, R. Karl, G.J. Mahler, W. Meng, K. Mernick, R.J. Michnoff, M.G. Minty, J. Ritter, J.E. Tuozzolo, J. White (BNL)*

**THP065 High Order Nonlinear IR Optics Corrections** – *C.M. Zimmer (BNL), S. Binello, F.C. Pilat (BNL)*

**THP066 Simulation of Jitter Effects in Crab Cavity Compensation for LHC Upgrade** – *J. Qiang (LBNL), R. Calaga (BNL), K. Ohmi (KEK)*

### Light Sources and FELs

**THP067 Generation of High Harmonic FEL Radiation through Compression** – *J. Qiang (LBNL), N. Thompson (STFC/DL/ASTeC), J. Wu (SLAC)*

### Colliders

**THP068 Multipacting Analysis for the Half-Wave Spoke Resonator Crab Cavity for the LHC Upgrade** – *Z. Li (SLAC), L. Ge (SLAC)*

**THP069 Vibration Budget for SuperB Interaction Region** – *K.J. Bertsche (SLAC), B. Bolzon, L. Brunetti, A. Jeremie (IN2P3-LAPP), M. Esposito, S. Tomassini (INFN/LNF)*

**THP070 Vibration Validation for ILC Detector Platform** – *K.J. Bertsche (SLAC), J.W. Amann, T.W. Markiewicz, M. Oriunno, A.W. Weidemann (SLAC)*

**THP071 Interaction Region Design of Super-CT-Factory in Novosibirsk** – *A.V. Bogomyagkov (BINP SB RAS)*

**THP072 Compensation of Detector Solenoid in SUPER-B** – *Y. Nosochkov (SLAC), K.J. Bertsche, M.K. Sullivan (SLAC)*

- THP073 **Simulations of Emittance Measurement at CLIC** – Yu.A. Kubyshin (UPC), H. Garcia (UPC) E. Marin, D. Schulte, F. Stulle (CERN)
- THP074 **Energy Variations and Emittance Growth in the ILC Main Linac with KCS** – Y. Sun (CERN) C. Adolphsen, C.D. Nantista (SLAC)
- THP075 **A Beam Dynamics Study of the Implications of Tolerances on the Luminosity in the Crab Cavities of CLIC** – I.R.R. Shinton (UMAN), C.J. Glasman, R.M. Jones (UMAN) P.K. Ambattu, G. Burt (Cockcroft Institute, Lancaster University) A. Latina (Fermilab)
- THP076 **Combined Target Collection System for Positron Production in ILC** – A.A. Mikhailichenko (CLASSE)

Light Sources and FELs

- THP077 **SC Quadrupole for Cryomodule for ERL/ILC** – A.A. Mikhailichenko (CLASSE)

Colliders

- THP078 **Study of a TeV Level Linear Collider Using Short rf Pulse (~20ns) Two Beam Accelerator Concept** – C.-J. Jing (Euclid TechLabs, LLC), S.P. Antipov, A. Kanareykin, P. Schoessow (Euclid TechLabs, LLC) M.E. Conde, W. Gai, J.G. Power (ANL)
- THP079 **Recent RHIC-motivated Polarized Proton Developments in the Brookhaven AGS** – L. A. Ahrens (BNL), M. Bai, S. Binello, M. Blaskiewicz, K.A. Brown, W. Fischer, C.J. Gardner, J.W. Glenn, H. Huang, F. Lin, W.W. MacKay, J. Morris, S. Nemesure, T. Roser, V. Schoefer, S. Tepikian, N. Tsoupas, K. Yip, A. Zelenski, K. Zeno (BNL)
- THP080 **Impact of Arc Phase Advance Tuning on Chromatic Optics in RHIC** – R. Calaga (BNL), R. Miyamoto (BNL) R. Tomas, G. Vanbavinckhove (CERN)
- THP081 **Beam Lifetime and Limitations during Low-energy RHIC Operation** – A.V. Fedotov (BNL), M. Bai, M. Blaskiewicz, W. Fischer, D. Kayran, C. Montag, T. Satogata, S. Tepikian, G. Wang (BNL)
- THP082 **Design Aspects of an Electrostatic Electron Cooler for Low-energy RHIC** – A.V. Fedotov (BNL), I. Ben-Zvi, J. Brodowski, X. Chang, D.M. Gassner, L.T. Hoff, D. Kayran, J. Kewisch, B. Oerter, A. Pendzick, S. Tepikian, P. Thieberger (BNL) L.R. Prost, A.V. Shemyakin (Fermilab)

## Thursday, March 31

- THP083 **Fabrication and Design of the Main Linacs for CLIC with Damped and Detuned Wakefield Suppression and Optimised Surface Fields** – R.M. Jones (UMAN), A. D'Elia, V.F Khan (UMAN) A. Grudiev, G. Riddone, W. Wuensch (CERN)

### Light Sources and FELs

- THP084 **Analysis of Coupled Higher Order Dipole Modes in the ACC39 Module at FLASH** – R.M. Jones (UMAN), I.R.R. Shinton, P. Zhang (UMAN) N. Baboi (DESY) T. Flisgen, U. van Rienen (Rostock University, Faculty of Computer Science and Electrical Engineering) H.-W. Glock (Rostock University, Faculty of Engineering) Z. Li (SLAC)

### Colliders

- THP085 **Radiation Effects in a Muon Collider Ring and Dipole Magnet Protection** – N.V. Mokhov (Fermilab), V. Kashikhin, I. Novitski, A.V. Zlobin (Fermilab)
- THP086 **Beam-beam Effect in a High-luminosity Muon Collider** – A. Valishev (Fermilab), Y. Alexahin, A.V. Netepenko (Fermilab)
- THP087 **Luminosity Monitoring in an Energy Frontier Muon Collider** – M.A.C. Cummings (Muons, Inc) M. DeMarteau (Fermilab) D. Hedin (Northern Illinois University)
- THP088 **Simulation of Accelerator Based Backgrounds in a Muon Collider** – S.A. Kahn (Muons, Inc), M.A.C. Cummings (Muons, Inc) D. Hedin, A.O. Morris (Northern Illinois University) J.F. Kozminski (Lewis University)
- THP089 **Beam Induced Energy Deposition in Muon Collider Interaction Region Magnets and Shielding** – S.A. Kahn (Muons, Inc), M.A.C. Cummings, T.J. Roberts (Muons, Inc) D. Hedin, A.O. Morris (Northern Illinois University) J.F. Kozminski (Lewis University)
- THP090 **Monte Carlo Simulations of Detector Backgrounds at a Muon Collider** – A.O. Morris (Northern Illinois University), D. Hedin (Northern Illinois University) M.A.C. Cummings, S.A. Kahn, T.J. Roberts (Muons, Inc) J.F. Kozminski (Lewis University)
- THP091 **Monte Carlo Simulations of Detector Backgrounds at a Muon Collider** – A.O. Morris (Northern Illinois University), D. Hedin (Northern Illinois University) M.A.C. Cummings, S.A. Kahn (Muons, Inc) J.F. Kozminski (Lewis University)

## Thursday, March 31

- THP092 **Electron Cooling for MEIC at JLAB** – *Y. Zhang (JLAB), Y.S. Derbenev, V.S. Morozov, B. Terzic (JLAB)*
- THP093 **Design Status of MEIC at JLab** – *Y. Zhang (JLAB), S. Ahmed, S.A. Bogacz, P. Chevtsov, Y.S. Derbenev, M. Hutton, G.A. Krafft, R. Li, F. Marhauser, V.S. Morozov, F.C. Pilat, R.A. Rimmer, Y. Roblin, T. Satogata, M. Spata, B. Terzic, M.G. Tiefenback, H. Wang, B.C. Yunn (JLAB) S. Abeyratne, B. Erdelyi (Northern Illinois University) D.P. Barber (Cockcroft Institute) A.M. Kondratenko (GOO Zaryad) S.L. Manikonda, P.N. Ostroumov (ANL) H. K. Sayed (ODU) M.K. Sullivan (SLAC)*
- THP094 **eRHIC Interaction Region Design** – *J. Beebe-Wang (BNL)*
- THP095 **MEIC Electron Ring Chromaticity Correction and Dynamic Aperture Studies** – *H. K. Sayed (ODU) S.A. Bogacz (JLAB)*
- THP096 **Achromatic Low-Beta Interaction Region Design for Electron Rings** – *V.S. Morozov (JLAB), Y.S. Derbenev (JLAB) C.M. Ankenbrandt (Muons, Inc)*
- THP097 **Bent Achromatic Interaction Region Design for High Luminosity Colliders** – *V.S. Morozov (JLAB), Y.S. Derbenev (JLAB) G.M. Wang (BNL)*
- THP098 **Ion Polarization in ELIC** – *V.S. Morozov (JLAB), P. Chevtsov, Y.S. Derbenev (JLAB) A.M. Kondratenko (GOO Zaryad)*
- THP099 **Electron Polarization in ELIC** – *V.S. Morozov (JLAB), P. Chevtsov, Y.S. Derbenev (JLAB) A.M. Kondratenko (GOO Zaryad)*
- THP100 **Structure and Design of the Electron Lens for RHIC** – *A.I. Pikin (BNL), J.G. Alessi, M. Anerella, E.N. Beebe, W. Fischer, D.M. Gassner, R.C. Gupta, J. Hock, A.K. Jain, R.F. Lambiase, Y. Luo, C. Montag, M. Okamura, D. Raparia, Y. Tan, P. Thieberger, J.E. Tuozzolo, W. Zhang (BNL)*
- THP101 **The MERLIN Simulation Program: New Features used in Studies of the LHC Collimation System using MERLIN** – *R.J. Barlow (UMAN), R. Appleby, J. Molson, H.L. Owen, A.M. Toader (UMAN)*
- THP102 **Simulation Studies of Accelerating Polarized Light Ions at RHIC and AGS** – *M. Bai (BNL), E.D. Courant, W. Fischer, F. Meot, V. Ptitsyn, T. Roser, A. Zelenski (BNL)*

## Thursday, March 31

THP103 **An Assessment of Spin Resonances in RHIC Using the Ray-tracing Code ZGOUBI** – *F. Meot (BNL), M. Bai, H. Huang, T. Roser (BNL) V.H. Ranjbar (Tech-X)*

THP104 **ILC Positron Source Study Update - Simulation Study of Photon Collimator** – *W. Liu (ANL), W. Gai (ANL)*

THP105 **ILC RTML Extraction Lines for Single Stage Bunch Compressor** – *S. Seletskiy (BNL)*

### Light Sources and FELs

THP106 **Studies of CSR Effect on Beam Compression at NSLS Source Development Laboratory** – *S. Seletskiy (BNL)*

THP107 **Studies of Microbunching at BNL NSLS Source Development Laboratory** – *S. Seletskiy (BNL)*

### Colliders

THP108 **Analysis of RHIC Beam Dump Pre-fires** – *W. Zhang (BNL), L. A. Ahrens, W. Fischer, H. Hahn, J.-L. Mi, J. Sandberg, Y. Tan (BNL)*

THP109 **Dielectric Collimators for Linear Collider Beam Delivery System** – *A. Kanareykin (Euclid Tech-Labs, LLC) S. Baturin (LETI) R. Tomas (CERN)*

THP110 **Front End Energy Deposition and Collimation Studies for IDS-NF** – *C.T. Rogers (STFC/RAL/ASTeC) D.V. Neuffer (Fermilab) P. Snopok (UCR)*

### Light Sources and FELs

THP111 **Conceptual Design of an Isochronous Ring as a Coherent THZ Light Source** – *G. Feng (USTC/NSRL)*

THP112 **Lattice Design for HLSII Storage Ring Upgrade Project** – *G. Feng (USTC/NSRL)*

THP113 **A Method of using  $2n\pi$  Straight Sections to Extending Storage Ring Lattices** – *H. Hao (USTC/NSRL)*

THP114 **Status of the PEP-X Light Source Design Study** – *R.O. Hettel (SLAC), K.L.F. Bane, K.J. Bertsche, Y. Cai, A. Chao, X. Huang, Y. Jiao, C.-K. Ng, Y. Nosochkov, A. Novokhatski, T. Rabedeau, C.H. Rivetta, J.A. Safranek, G.V. Stupakov, L. Wang, M.-H. Wang, L. Xiao (SLAC)*

THP115 **Current Status of SIRIUS, a New Synchrotron Light Source in Brazil** – *L. Liu (LNLS), R. Basilio, R.H.A. Farias, X.R. Resende, A.R.D. Rodrigues, P.P. Sanchez, R.M. Seraphim, G. Tosin (LNLS)*

THP116 **Low Momentum Compaction Optics for Elettra** – *E. Karantzoulis (ELETTRA), A. Carniel, O. Ferrando, S. Krecic (ELETTRA)*



## Thursday, March 31

- THP117 **The Update of HALS Storage Ring Design** – *L. Wang (USTC/NSRL), Z. Bai, W. Fan, G. Feng, W.W. Gao, W. Li, T. Zhou (USTC/NSRL)*
- THP118 **The Progress of HLS II Storage Ring Upgrade Project** – *L. Wang (USTC/NSRL), G. Feng, W.W. Gao, W. Li, H. Xu, S.C. Zhang (USTC/NSRL)*
- THP119 **Potential Twofold Reduction of Advanced Photon Source Emittance using Orbit Displacement** – *M. Borland (ANL)*
- THP120 **Light Sources Optimized with Super Bends** – *L. Emery (ANL) C. Steier (LBNL)*
- THP121 **Open-source Software System for Multi-author Documents** – *L. Emery (ANL)*
- THP122 **Comparison of Chirp Schemes for Short-Pulse X-ray Beams in Light Sources** – *L. Emery (ANL)*
- THP123 **Simulation of Fast Orbit Feedback at the Advanced Photon Source** – *L. Emery (ANL)*
- THP124 **Higher Current Operation for the APS Upgrade** – *K.C. Harkay (ANL), G. Berenc, M. Borland, Y.-C. Chae, L. Emery, D. Horan, R. Nassiri, V. Sajaev, G.J. Waldschmidt, A. Xiao, C. Yao (ANL)*
- THP125 **Multi-objective Optimization of a Lattice for Potential Upgrade of the Advanced Photon Source\*** – *V. Sajaev (ANL), M. Borland, L. Emery, A. Xiao (ANL)*
- THP126 **Obtaining Sub-picosecond X-ray Pulses in the Advanced Photon Source using Laser Slicing** – *A. Zholents (ANL), M. Borland (ANL)*
- THP127 **Analysis of NSLS-II Touschek Lifetime** – *J. Choi (BNL), S.L. Kramer (BNL)*
- THP128 **Numerical Analysis of Efficiencies of Active and Passive Compensation Schemes for Non-Linear Dynamics Effects of NSLS-II Insertion Devices** – *O.V. Chubar (BNL), J. Bengtsson, C.A. Kitegi, T. Tanabe (BNL)*
- THP129 **Emittance Reduction Approaches for NSLS-II** – *W. Guo (BNL), F.J. Willeke (BNL)*
- THP130 **Radiological Implications of Top-off Injection at Synchrotron Radiation Sources** – *P.K. Job (BNL), W.R. Casey (BNL)*
- THP131 **Injection Straight Pulsed Magnet Error Tolerance Study for Top-off Injection** – *G.M. Wang (BNL), R.P. Fliller, R. Heese, S. Kowalski, B. Parker, T.V. Shaftan (BNL)*

## Thursday, March 31

- THP132 **Beam Diagnostics using BPM Signals from Injected and Stored Beams in a Storage Ring** – G.M. Wang (BNL), W.X. Cheng, R.P. Fliller, R. Heese, T.V. Shafan, O. Singh (BNL)
- THP133 **Modulation of Low Energy Beam to Generate Predefined Bunch Trains for the NSLS-II Top-off Injection** – G.M. Wang (BNL), W.X. Cheng, R.P. Fliller, R. Heese, J. Rose, T.V. Shafan (BNL)
- THP134 **Lifetime Measurement with Pseudo Moveable Septum in NSLS X-ray Ring** – G.M. Wang (BNL), R. Heese, S.L. Kramer, T.V. Shafan, X. Yang (BNL)
- THP135 **Implementation of a DC Bump at the Storage Ring Injection Straight Section** – G.M. Wang (BNL), R.P. Fliller, W. Guo, R. Heese, S.L. Kramer, B. Parker, T.V. Shafan, J. Skaritka, C.J. Spataro, F.J. Willeke, L.-H. Yu (BNL)
- THP136 **Short Pulse Generation by Laser Slicing at NSLSII.** – L.-H. Yu (BNL)
- THP137 **Tracking Study for Top-off Safety Validation at SSRL** – X. Huang (SLAC), W.J. Corbett, D. Dell'Orco, R.O. Hettel, T. Rabedeau, J.A. Safranek, J.F. Schmerge, J.J. Sebek, A. Terebilo, L. Wang (SLAC)
- THP138 **SPEAR3 Booster RF System Upgrade Plan** – S. Park (SLAC)
- THP139 **Minimizing Stored Beam Transients During Top-off Injection** – J.A. Safranek (SLAC)
- THP140 **Synchrotron Light Options at Super-B** – W. Wittmer (SLAC), Y. Nosochkov, A. Novokhatski, J. Seeman, M.K. Sullivan (SLAC) M.E. Biagini, P. Raimondi (INFN/LNF)
- THP141 **Threshold Characteristics of Free Electron Lasers without Inversion** – K.B. Oganessian (YerPhI) A.I. Artemyev, D.N. Klochkov (GPI)
- THP142 **Undulator Radiation in the THz Region** – E.M. Sarkisyan (YerPhI), K.B. Oganessian, G.O. Sargsyan (YerPhI) A.I. Artemyev (GPI)
- THP143 **sFLASH: Status of the XUV-seeding Project at the Free Electron Laser FLASH** – T. Laarmann (DESY), S. Bajt, S. Düsterer, H. Schlarb (DESY) A. Azima, J. Boedewadt, F. Curbis, H. Delsim-Hashemi, M. Drescher, E. Hass, U. Hipp, Th. Maltzopoulos, V. Miltchev, M. Mittenzwey, M. Rehders, J. Rossbach, R. Tarkeshian, M. Wieland (Uni HH) R. Ischebeck (PSI) S. Khan (DELTA)

## Thursday, March 31

- THP144 **FELs as X-ray Sources in ERL Facilities** – A. Meseck (HZB) G.H. Hoffstaetter, F. Loehl, C.E. Mayes (CLASSE)
- THP145 **Production of Narrow Bandwidth FEL Radiation via a Tapered Undulator** – H.T. Li (USTC/NSRL), Q.K. Jia (USTC/NSRL)
- THP146 **Simulation Studies of the THz Free-electron Laser Oscillator** – A.L. Wu (USTC/NSRL)
- THP147 **Angular Anisotropy of Radiation and Doppler Effect Modification at Motion of Relativistic Particles in Transversal-Nonuniform Fields in Crystals and FEL-like Systems** – M.V. Vysotskyy (National Taras Shevchenko University of Kyiv, Radiophysical Faculty), V.I. Vysotskii (National Taras Shevchenko University of Kyiv, Radiophysical Faculty)
- THP148 **Superradiance in a Tapered Single-Pass Free-Electron Laser Amplifier** – Y. Hidaka (BNL), J.B. Murphy, B. Podobedov, S. Seletskiy, Y. Shen, X.J. Wang, X. Yang (BNL)
- THP149 **Amplification of Current Density Modulation in a FEL with an Infinite Electron beam** – G. Wang (BNL), V. Litvinenko, S.D. Webb (BNL)
- THP150 **Extremely High Gain FEL Amplifiers** – V. Litvinenko (BNL), V. Yakimenko (BNL)
- THP151 **Experimental Demonstration of the Temporal and Spectral Breakup in an Ultrafast Laser-Seeded Free-Electron Laser** – X. Yang (BNL), Y. Hidaka, J.B. Murphy, B. Podobedov, S. Seletskiy, Y. Shen (BNL)
- THP152 **Calibration of Spectrometers with Undulator Radiation** – S. Huang (PKU/IHIP) B. Jia, J.Y. Li, Y.K. Wu (FEL/Duke University)
- THP153 **FEL Gain Manipulation using an In-cavity Aperture System** – J.Y. Li (FEL/Duke University), B. Jia, S.F. Mikhailov, V. Popov, Y.K. Wu (FEL/Duke University) S. Huang (PKU/IHIP)
- THP154 **Soft Magnetic End-of-Arcs in the Duke FEL/HIG $\gamma$ S Storage Ring for Extension of the Lifetime of VUV Mirrors** – S.F. Mikhailov (FEL/Duke University), J.Y. Li, V. Popov, Y.K. Wu (FEL/Duke University)
- THP155 **Experience of FEL Mirror Degradation at the Duke FEL and HIGS Facility** – S.F. Mikhailov (FEL/Duke University), J.Y. Li, V. Popov, Y.K. Wu (FEL/Duke University)

## Thursday, March 31

- THP156 **Converting CESR to Frontier Light Source Status** – *R.M. Talman (CLASSE), D. L. Rubin (CLASSE)*
- THP157 **Study of High Single-bunch Current Operation of a Light Source Storage Ring** – *Y.K. Wu (FEL/Duke University), B. Jia, J.Y. Li, S.F. Mikhailov, V. Popov, W. Wu (FEL/Duke University) S. Huang (PKU/IHIP)*
- THP158 **Accelerator Physics Research and Light Source Development at Duke University** – *Y.K. Wu (FEL/Duke University)*
- THP159 **Simulation Studies of a Storage-ring FEL** – *Y.K. Wu (FEL/Duke University), B. Jia, J.Y. Li (FEL/Duke University) J. Wu (SLAC)*
- THP160 **Seeded FEL Configurations for Soft X-ray Generation** – *G. Penn (LBNL), J.N. Corlett, C. F. Papadopoulos, S. Prestemon, J. Qiang, M.W. Reinsch, F. Sannibale, D. Schlueter, M. Venturini (LBNL) P.R. Gandhi, J.S. Wurtele (UCB)*
- THP161 **Echo-Oscillator Scheme for Tunable Soft X-Ray FELs** – *M.W. Reinsch (LBNL), W.M. Fawley, G. Penn (LBNL) P.R. Gandhi, J.S. Wurtele (UCB) A. Zholents (ANL)*
- THP162 **Simulations of XFEL Output from Beams Conditioned with Emittance Partitioning and Electron Pre-Bunching** – *Q.R. Marksteiner (LANL), B.E. Carlsten, L. Duffy, N.A. Yampolsky (LANL)*
- THP163 **Pre-Conceptual Design Requirements for an X-Ray Free Electron Laser for the MaRIE Experimental Facility at LANL** – *R.L. Sheffield (LANL), R.W. Garnett, M.S. Gulley (LANL)*
- THP164 **Orbital Angular Momentum Light Generated via FEL at NLCTA** – *A. Knyazik (UCLA), E. Hemming, A. Marinelli, J.B. Rosenzweig (UCLA)*
- THP165 **Time-Resolved Images of the Effects of Coherent Synchrotron Radiation in the LCLS First Bunch Compressor** – *P. Emma (SLAC), F. Zhou (SLAC)*
- THP166 **Lattice Candidates for a Single Stage X-band Bunch Compressor** – *Y. Sun (SLAC), T.O. Raubenheimer (SLAC)*
- THP167 **A Bunch Compression System for an X-band FEL** – *Y. Sun (SLAC), T.O. Raubenheimer, J. Wu (SLAC) Y. Jiao (IHEP Beijing)*

## Thursday, March 31

- THP168 **FEL Beam Stability in the LCLS\*** – J.L. Turner (SLAC), R. Akre, A. Brachmann, F.-J. Decker, Y.T. Ding, P. Emma, A.S. Fisher, J.C. Frisch, A. Gilevich, P. Hering, K. Horovitz, Z. Huang, R.H. Iverson, D. Kharakh, A. Krasnykh, J. Krzywinski, H. Loos, M. Messerschmidt, S.P. Moeller, H.-D. Nuhn, D.F. Ratner, T.J. Smith, J.J. Welch, J. Wu (SLAC)
- THP170 **Observation and Characterization of Microbunching Instability in the SLAC Next Linear Collider Test Accelerator** – S.P. Weathersby (SLAC)
- THP171 **Demonstration of 3D Effects with High Gain and Efficiency in a UV FEL Oscillator** – S.V. Benson (JLAB), G.H. Biallas, K. Blackburn, J.R. Boyce, D.B. Bullard, J.L. Coleman, C. Dickover, D. Douglas, F.K. Ellingsworth, P. Evtushenko, C.W. Gould, J.G. Gubeli, D. Hardy, C. Hernandez-Garcia, K. Jordan, J.M. Klopff, J. Kortze, R.A. Legg, M. Marchlik, S.W. Moore, G. Neil, T. Powers, D.W. Sexton, M.D. Shinn, C. Tennant, F.G. Wilson, S. Zhang (JLAB)
- THP172 **Operation and Commissioning of the Jefferson Lab UV FEL using an SRF Driver ERL** – R.A. Legg (UW-Madison/SRC) S.V. Benson, G.H. Biallas, K. Blackburn, J.R. Boyce, D.B. Bullard, J.L. Coleman, C. Dickover, D. Douglas, F.K. Ellingsworth, P. Evtushenko, C.W. Gould, J.G. Gubeli, F.E. Hannon, D. Hardy, C. Hernandez-Garcia, K. Jordan, J.M. Klopff, J. Kortze, M. Marchlik, S.W. Moore, G. Neil, T. Powers, D.W. Sexton, M.D. Shinn, C. Tennant, R.L. Walker, G.P. Williams, F.G. Wilson, S. Zhang (JLAB)
- THP173 **Design of the SRF Driver ERL for the Jefferson Lab UV FEL** – D. Douglas (JLAB), S.V. Benson, G.H. Biallas, K. Blackburn, J.R. Boyce, D.B. Bullard, J.L. Coleman, C. Dickover, F.K. Ellingsworth, P. Evtushenko, C.W. Gould, J.G. Gubeli, F.E. Hannon, D. Hardy, C. Hernandez-Garcia, K. Jordan, J.M. Klopff, J. Kortze, M. Marchlik, S.W. Moore, G. Neil, T. Powers, D.W. Sexton, M.D. Shinn, C. Tennant, R.L. Walker, F.G. Wilson, S. Zhang (JLAB)
- THP174 **Single Oscillator Echo Scheme** – P.R. Gandhi (UCB), J.S. Wurtele (UCB) G. Penn, M.W. Reinsch (LBNL)
- THP175 **Performance Limiting Factors in XFEL Cavity** – G.-T. Park (University of Chicago) K.-J. Kim, R.R. Lindberg (ANL)

## Thursday, March 31

- THP176 **Progress Toward the Wisconsin Free Electron Laser Facility** – *J. Bisognano (UW-Madison/SRC), R.A. Bosch, D. Eisert, M.V. Fisher, M.A. Green, K. Jacobs, K.J. Kleman, J. Kulpin, G.C. Rogers (UW-Madison/SRC) J.E. Lawler, D. Yavuz (UW-Madison/PD) R.A. Legg (JLAB)*
- THP177 **The Upgrade Of Hefei Light Source (HLS) Linac** – *S.C. Zhang (USTC/NSRL)*
- THP178 **Design of the MAX IV Ring Injector and SPF/FEL Driver** – *S. Thorin (MAX-lab), M. Eriksson, B.N. Jensen, M.A.G. Johansson, D. Kumbaro, L. Malmgren, S. Werin (MAX-lab) D. Angal-Kalinin, J.W. McKenzie, B.L. Militsyn, P.H. Williams (STFC/DL/ASTeC)*
- THP179 **RF Compression of Sub-relativistic Space-charge-dominated Electron Bunches for Single-shot Femtosecond Electron Diffraction** – *T. van Oudheusden (TUE), O.J. Luiten, M.J. de Loos (TUE) S.B. van der Geer (Pulsar Physics)*
- THP180 **Studies of a Linac Driver for a High Repetition Rate X-rays FEL** – *M. Venturini (LBNL), J.N. Corlett, D. Filippetto, C. F. Papadopoulos, G. Penn, J. Qiang, M.W. Reinsch, R.D. Ryne, F. Sannibale, J.W. Staples, R.P. Wells, J.S. Wurtele, M.S. Zolotarev (LBNL)*
- THP181 **Low Intensity Nonlinear Effects in Compton Scattering Sources** – *F. Albert (LLNL), S.G. Anderson, C.P.J. Barty, M. Betts, R.R. Cross, C.A. Ebberts, D.J. Gibson, F.V. Hartemann, T.L. Houck, R.A. Marsh, M. J. Messerly, C. Siders, S.S.Q. Wu (LLNL)*
- THP182 **Overview of Current Progress on the LLNL Center for Nuclear Photonics and Mono-energetic Gamma-ray Source** – *R.A. Marsh (LLNL), S.G. Anderson, C.P.J. Barty, C.A. Ebberts, D.J. Gibson, F.V. Hartemann, T.L. Houck (LLNL) C. Adolphsen, T.S. Chu, E.N. Jongewaard, T.O. Raubenheimer, S.G. Tantawi, A.E. Vlieks, J.W. Wang (SLAC)*
- THP183 **Ultrashort LCLS Bunch Length Measurement Using the SLAC A-line Spectrometer** – *Z. Huang (SLAC), A. Baker, M. Boyes, J. Craft, Y.T. Ding, P. Emma, R.H. Iverson, J.J. Lipari, H. Loos, D.R. Walz (SLAC)*
- THP184 **Tuning of the LCLS Linac for User Operation** – *H. Loos (SLAC), R. Akre, A. Brachmann, F.-J. Decker, Y.T. Ding, P. Emma, A.S. Fisher, J.C. Frisch, A. Gilevich, P. Hering, Z. Huang,*

## Thursday, March 31

*R.H. Iverson, N. Lipkowitz, H.-D. Nuhn, D.F. Ratner, J.A. Rzepiela, T.J. Smith, J.L. Turner, J.J. Welch, W.E. White, J. Wu, G. Yocky (SLAC)*

- THP185 **Design and Results of an Experiment to Generate Narrow-band, Coherent, Tunable Terahertz Radiation using a Laser-modulated Electron Beam** – *M.P. Dunning (SLAC), D. Xiang (SLAC)*
- THP186 **Lattice Design for ERL Options at SLAC** – *M.-H. Wang (SLAC), Y. Cai, X. Huang, Y. Nosochkov (SLAC)*
- THP187 **Design Concept for a Compact ERL to Drive a VUV/Soft X-Ray FEL** – *C. Tennant (JLAB), D. Douglas (JLAB)*
- THP188 **The Status of Turkish Accelerator Center Project** – *O. Yavas (Ankara University, Faculty of Engineering)*
- THP189 **Low Horizontal Beta Function in Long Straights of the NSLS-II Lattice** – *F. Lin (BNL), J. Bengtsson, W. Guo, S. Krinsky, Y. Li, L. Yang (BNL)*
- THP190 **Additional Quadrupoles at Center of Long Straights in the NSLS-II Lattice** – *F. Lin (BNL), J. Bengtsson, W. Guo, S. Krinsky, Y. Li, L. Yang (BNL)*
- THP191 **Injector Upgrade of the Stanford Synchrotron Radiation Light Source** – *K. Tian (SLAC), S.M. Gierman, J.A. Safranek (SLAC)*
- THP192 **Effect of Surface Roughness on the Emittance of an Electron Beam from GaAs Photocathode** – *S.S. Karkare (Cornell University), I.V. Bazarov (Cornell University) L. Cultrera, X. Liu (CLASSE)*
- THP193 **Study of Single and Coupled-Bunch Instabilities for NSLS-II** – *G. Bassi (BNL), A. Blednykh (BNL)*
- THP195 **Simulation and Experiment of a Compact C-band Photocathode RF Gun** – *X.H. Liu (TUB), C.-X. Tang (TUB)*
- THP196 **High Power Beam Test of a 1.6-cell Photocathode RF Gun at PAL** – *M.S. Chae (POSTECH), J.H. Hong, I.S. Ko, Y.W. Parc (POSTECH) C. Kim, S.J. Park (PAL)*
- THP197 **A Laser-Cooled High-Brightness Electron Source for a Quantum SASE-FEL** – *M.J. de Loos (TUE), O.J. Luiten, E.J.D. Vredenburg (TUE) S.B. van der Geer (Pulsar Physics)*

## Thursday, March 31

- THP198 **Upgrade of the RF Photo-injector for the Duke Storage Ring** – *V. Popov (FEL/Duke University), J.Y. Li, S.F. Mikhailov, P.W. Wallace, P. Wang, Y.K. Wu (FEL/Duke University)*
- THP199 **Raising Photoemission Efficiency with Surface Acoustic Waves** – *A. Afanasev (Hampton University) R.P. Johnson (Muons, Inc)*
- THP200 **Photoinjector Beam Dynamics for the APEX Project** – *C. F. Papadopoulos (LBNL), J.N. Corlett, D. Filippetto, J. Qiang, F. Sannibale, J.W. Staples, M. Venturini, M.S. Zolotorev (LBNL) M. Yoon (POSTECH)*
- THP201 **CW NCRF Injector with a Diamond Field-Emission Array Cathode** – *H.L. Andrews (LANL), N.A. Moody, D.C. Nguyen (LANL)*
- THP202 **First CW Operation of High Gradient Normal Conducting rf Electron Injector** – *N.A. Moody (LANL), C.E. Heath, F.L. Krawczyk, F.A. Martinez, D.C. Nguyen, W. Roybal, T.L. Tomei (LANL)*
- THP203 **Improved DC Gun Insulator Assembly** – *M.L. Neubauer (Muons, Inc), A. Dudas, R. Sah (Muons, Inc) G. Neil, K.E.L. Surlis-Law (JLAB)*
- THP204 **Corrections to Quantum Efficiency Predictions for Low Work Function Electron Sources** – *K. L. Jensen (NRL) D.W. Feldman, E.J. Montgomery, P.G. O'Shea (UMD) J.J. Petillo (SAIC)*
- THP205 **Modeling the Performance of a Diamond Current Amplifier for FELs** – *K. L. Jensen (NRL), B. Pate, J.L. Shaw, J.E. Yater (NRL) J.J. Petillo (SAIC)*
- THP206 **New Simulations of the LCLS Injector** – *F. Zhou (SLAC), Y.T. Ding, P. Emma (SLAC)*
- THP207 **Fabrication and Characterization of Alkali-Based Photocathodes for Free Electron Lasers** – *S.A. Khan (UMD), E.J. Montgomery, P.G. O'Shea, B.C. Riddick (UMD)*
- THP208 **Development of Alkali-Based High Quantum Efficiency Semiconductors for Dispenser Photocathodes** – *E.J. Montgomery (UMD), D.W. Feldman, S.A. Khan, P.G. O'Shea, P.Z. Pan, B.C. Riddick (UMD) K. L. Jensen (NRL)*
- THP209 **Modeling the Evolution of Cesium Coatings on Dispenser Photocathodes** – *P.Z. Pan (UMD), D.W. Feldman, E.J. Montgomery, P.G. O'Shea, B.C. Riddick (UMD) K. L. Jensen (NRL)*



## Thursday, March 31

- THP210 **Modeling Recesiated Photocathodes with Knudsen Flow Theory** – *B.C. Riddick (UMD), D.W. Feldman, E.J. Montgomery, P.G. O'Shea (UMD) K. L. Jensen (NRL)*
- THP211 **Design Features and Construction Progress of TPS RF System** – *Ch. Wang (NSRRC), L.-H. Chang, M.-C. Lin, M.-S. Yeh (NSRRC)*
- THP212 **Superconducting Cavity Design for Short-Pulse X-Rays at the Advanced Photon Source** – *G.J. Waldschmidt (ANL), R. Nassiri (ANL) G. Cheng, R.A. Rimmer, H. Wang (JLAB)*
- THP213 **Traveling Wave Electron Linac for Synchrotron Injector** – *S.V. Kutsaev (MEPhI), K.I. Nikolskiy, N.P. Sobenin (MEPhI)*
- THP214 **Pulsed Multipole Injection for the MAX IV Storage Rings** – *S.C. Leemann (MAX-lab)*
- THP215 **Performance of the Diagnostics and Transport Line Design for NSLS-II Linac Commissioning** – *R.P. Fliller (BNL), R. Heese, B.N. Kosciuk, D. Padrazo, I. Pinayev, J. Rose, T.V. Shaftan, O. Singh, G.M. Wang (BNL)*
- THP216 **Progress with NSLS-II Injection Straight Section Design** – *T.V. Shaftan (BNL), R. Alforque, A. Blednykh, W.R. Casey, L.R. Dalesio, R. Faussette, M.J. Ferreira, R.P. Fliller, G. Ganetis, R. Heese, H.-C. Hseuh, P.K. Job, B.N. Kosciuk, S. Kowalski, S.L. Kramer, B. Parker, I. Pinayev, S. Sharma, O. Singh, C.J. Spataro, G.M. Wang, E.J. Willeke (BNL)*
- THP217 **Frequent Fill Top-Off Injection at SPEAR3** – *J.J. Sebek (SLAC), S. Allison, S.M. Gierman, X. Huang, J.A. Safranek, J.F. Schmerge, K. Tian, C. Wermelskirchen (SLAC)*
- THP218 **Design Concept for a Modular In-vacuum Hall Probe Mapper for IVU/CPMU of Varying Magnetic Length** – *J. Rank (BNL)*
- THP219 **Ponderomotive Acceleration of Electrons by a Self Focused Laser Pulse** – *R. Singh (Indian Institute of Technology Delhi, Plasma Physics Group)*
- THP220 **Short-Period RF Undulator for a Nanometer SASE Source** – *S.V. Kuzikov (IAP/RAS) J.L. Hirschfield (Yale University, Physics Department) Y. Jiang (Yale University, Beam Physics Laboratory)*

## Thursday, March 31

- THP221 **Status of NSRRC High Brightness Injector Drive Laser System** – C.S. Chou (NSRRC), C.H. Chen, W.K. Lau, A.P. Lee, C.C. Liang (NSRRC) N.Y. Huang (NTHU)
- THP222 **Drive Laser System for APEX the Advanced Photo-injector Project at the LBNL** – J. Feng (LBNL), D. Filippetto, H.A. Padmore, F. Sannibale, R.P. Wells (LBNL) M. J. Messerly, M.A. Prantil (LLNL)
- THP223 **Laser Systems for Livermore's Mono-energetic Gamma-Ray Source** – D.J. Gibson (LLNL), F. Albert, C.P.J. Barty, A.J. Bayramian, C.A. Ebbers, F.V. Hartemann, R.A. Marsh, M. J. Messerly (LLNL)
- THP224 **Progress Report on Development of Novel Ultrafast Mid-IR Laser System** – R. Tikhoplav (RadiaBeam) I. Jovanovic (Penn State University)
- THP225 **Characterization and Suppression of the Electromagnetic Interference Induced Phase Shift in the JLab FEL Photo – Injector Advanced Drive Laser System** – F.G. Wilson (JLAB), T. Powers, D.W. Sexton, S. Zhang (JLAB)

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## Notes

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**Student Poster Session**



*Welcome Reception*

**Banquet & Scientific Programs**



**Sunday**

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- 15:00-17:00      Registration
  - 17:00-18:00      Student Poster Set-Up  
Judges Orientation
  - 18:00-22:00      Student Poster Session  
Reception

PAC'11 Synoptic Table

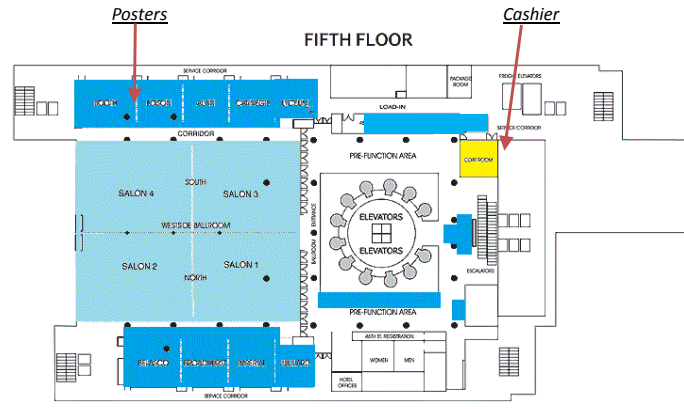
Time	Monday, March 28		Tuesday, March 29			Wednesday, March 30								
.....	7:30 to 8:30 Registration		7:30 to 8:30 Registration			7:30 to 8:30 Registration								
	Broadway Ballroom		North Ballroom	South Ballroom	Poster	North Ballroom	South Ballroom	Poster						
	Chair: Vladimir N. Litvinenko		Chair: Steve Gourlay	Chair: William Barletta	Session	Chair: Jeff Corbett	Chair: Sandra Biedron	Session						
8:30	Opening Remarks		Recent SuperB Design Choices	Tutorial on Accelerator-Based Light Sources, Michael Borland, ANL		Accelerator Timing Systems Overview, J. Serrano, CERN	Tutorial on Heavy Ion Driven Inertial Fusion, William M. Sharp, LLNL							
8:45	Understanding Elementary Particle Physics with High Energy Colliders, Jacobo Konigsberg, University of Florida		High Luminosity eRHIC											
9:00			Lattice for eRHIC and LHeC											
9:15			Feedback Scheme for Kink											
9:30	9:30: 10:00 Coffee Break		9:30: 10:00 Coffee Break			9:30: 10:00 Coffee Break								
	North Ballroom	South Ballroom	North Ballroom	South Ballroom	MANNED 1 - 160	North Ballroom	South Ballroom	MAN NED 1 - 160						
	Chair: Alan M. M. Todd	Chair: Alexander Chao	Chair: Chan Joshi	Chair: Rodney Gerig		Chair: Stan O. Schriber	Chair: Vladimir Shiltsev							
10:00	CBRNE Standoff Detection, B. Blackburn, RTN IDS	Beam Dynamics in the SNS Linac, A. P. Shishlo, ORNL	Beyond 1 GeV with Ionization Injection, K. Marsh, UCLA	Technical Challenges in the LCLS, J. N. Galayda, SLAC		Simultaneous Feedbacks at RHIC, M. Minty, BNL	Development of Wakefield Accelerators, W. Leemans							
10:15	Inverse-FEL Accelerator	High Intensity in the SNS Ring, S. Cousineau, ORNL	Towards a FEL Driven by a laser-plasma Acc., F. J. Gruener, LMU	Commissioning of the Japanese XFEL, T. Shintake, RIKEN/Spring-8		Real-Time Beam Control at the LHC, R. J. Steinhagen, CERN	Synchronization at Ultrafast Light Sources, J. Byrd, LBNL							
10:30	A Versatile Neutron Source													
10:45	Medical/Industrial Systems, D. Whittum, Varian Medical	Space Charge Dominated Bunch, T. Koeth, UMD	Resonant Excitation of PW	Status of the NSLS-II Project, Ferdinand J. Willeke, BNL	MANNED 1 - 160	BOY, A Modern Interface	Two-Stage Laser Wakefield	MAN NED 1 - 160						
11:00	Maximizing TT Benefits to Society, A. Peters, HIT	e-Cloud Experiments, R. M. Zwaska, Fermilab	Plasma Wakefield Exp. at FACET	Challenge of MAX-IV Towards, M. Eriksson, MAX-lab		Multipurpose FPGA with EPICS	Energy Changes at the LCLS							
11:15			Proton-driven PWA at CERN			RHIC LRF Upgrade Platform	Short-Pulse X-ray Project APS							
11:30			25 MeV Protons in CO <sub>2</sub> LPI		LARP LHC 4.8 GHz Schottky	Project X Front End ATF								
11:45														
12:00	12:00 to 13:30: Lunch Break		12:00 to 13:30: Lunch Break			12:00 to 13:00: Lunch Break			MAN NED 161-320					
.....						North Ballroom		South Ballroom		North Ballroom		South Ballroom		
13:00						Chair: Valeri Lebedev		Chair: Viatcheslav V. Danilov		Chair: Shane R. Koscielniak		Chair: Giorgio Apollinari		
					Laser Based Diagnostics for Measuring H minus Beam Parameters, Y. Liu, ORNL		Design and Test of Long Nb3Sn Magnets within the LARP Collab., G. Sabbi, LBNL							
13:30	Status of LHC & Physics Program, S. Redaelli, CERN	Non-neutral Plasma Traps, H. Okamoto, HU/AdSM	Computation of Transfer Maps, C. E. Mitchell, NRL	ERLs for Light Source Applications, G. R. Neil, JLAB	Accelerator Technology	A Non-Destructive Profile, W. Bokland, ORNL	11 T Nb3Sn Dipole for LHC	Beam Dynamics and EM Fields Sources and Medium Energy Accelerators						
13:45							HTS Magnets for Accelerators							
14:00	Tevatron Operation Highlights, A. Valishev	CLIC Two-beam Accelerator, A. E. Candel, SLAC	Spin Manipulating Polarized p and D, V. Morozov, ODU	Advance Photon Source		The LHC Luminosity Monitors	Upgraded VORPAL							
14:15				Status of the ALS Upgrade		e-Beam Diagnostics of UV FEL	Cryo System for Taiwan LS							
14:30	RHIC Polarized Proton Operation, H. Huang, BNL	Matched Quasi-equilibrium Solutions, E. Startsev, PPPL	Eigen-Emittance Concept	Accelerator Upgrade at PLS-II		Beam Halo Measurements	Cryomodule for e-Linac							
14:45			Subpicosecond e-Bunch	Cornell ERL R&D, C. Mayes		fsec-Resolved Pulses at sFLASH	Crab Cavity Prototype for APS							
15:00		Measurements in NDCX-I	Model for Emittance Exchange	100 MeV Polarized g-ray Beams										
15:15	Status of the KEKB Upgrade, J. W. Flanagan, KEK	H <sup>-</sup> Beam Transport of LANSCE, Y. Batygin, LANL	Emittance Exchange & Bunch Compression, A. Zholents, ANL	Design of Ultimate Storage Ring for Future LS, Y. Jing, IUCEEM		15:00-15:30 Coffee Break								
						North Ballroom			South Ballroom					
						Chair: Marion White			Chair: Rok Ursic					
15:30	15:30-16:00 Coffee Break		15:30-16:00 Coffee Break			15:30-16:00 Coffee Break								
	North Ballroom	South Ballroom	North Ballroom	South Ballroom	MANNED 161-320	North Ballroom	South Ballroom							
	Chair: Bruce P. Straus	Chair: Lia Meringa	Chair: Robert Hettel	Chair: Georg H. Hoffstaetter		System Specifications for Bunch by Bunch Feedback Systems, D. Teytelman, Dimtel	Future X-ray FELs Based on Advanced High Frequency Linacs, F. Wang, SLAC							
16:00	Beam-beam Compensation	Space-Charge Effects	CSR Fields from Maxwell's EQ.	MaRIE X-Ray FEL		KEK ATF Beam Instrumentation Program, N. Terunuma, KEK	High-Power Targets: Experience, P. Hurh, FNAL							
16:15	BB Compensation in RHIC	Nonlinear Resonances in SR	Parallel Optimization Tech.	A Next Generation LS at LBNL										
16:30	Crystal Collimation Studies	Studies of RF Noise at LHC	Parallel-Bar Deflecting Cavities	Echo-enabled Harmonics	MANNED 161-320	LNLS Fast Orbit Feedback	200 keV Inverted Electron Gun	MAN NED 161-320						
16:45	Crab Cavity Failures	Dancing Bunches as ...	Dynamic Aperture Optimization	FEL Seeding Experiments		NSLS-II Fast Orbit Feedback	High Gradient NC RF							
17:00	Chromaticity/Muon Collider	EM Design and BD of a RFQ	Wakefields for Short Bunches	Optics-free X-ray FEL Oscillator										
17:15	Muon Collider IR	Bilbao Accelerator RFQ	Action and Phase Jump Analysis	Optimizing RF Gun										
17:30						Women in Engineering Reception 17:30 - 19:30								
18:00														
18:30														
19:00														
19:30														
20:00														
21:00														

PAC'11 Synoptic Table

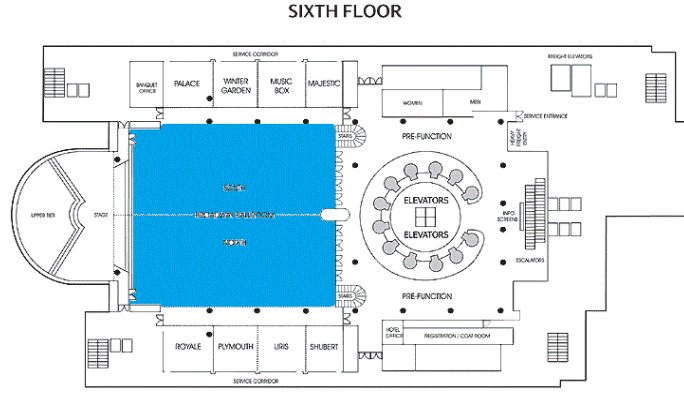
Time	Thursday, March 31			Friday, April 1	
.....	7:30 to 8:30 Registration			7:30 to 8:30 Registration	
	North Broadway Ballroom	South Broadway Ballroom	Poster	North Ballroom	South Ballroom
	<i>Chair: Yu-Juan Chen</i>	<i>Chair: Dave Sutter</i>	Session	<i>Chair: Kevin Jones</i>	<i>Chair: Todd Satogata</i>
8:30	Tutorial on Plasma-Based Accelerators, <i>Warren Mori, UCLA</i>	Symmetrizing RF Couplers		European Spallation Source	Tutorial on High Brightness Photoinjectors, <i>David Dowell, SLAC</i>
8:45		Solid State RF Power			
9:00		Oak Ridge SNS RF Systems			
9:15		Cavity for a He Ion Acc.			
9:30	9:30: 10:00 Coffee Break			9:30: 10:00 Coffee Break	
	North Ballroom	South Ballroom		North Ballroom	South Ballroom
	<i>Chair: Patric Muggli</i>	<i>Chair: Paul Schmor</i>		<i>Chair: Ivan V. Bazarov</i>	<i>Chair: John Erickson</i>
10:00	Neutrino Factory/Muon Collider R&D, <i>M. Zisman</i>	Superconducting Insertion Devices, <i>E. R. Moog, ANL</i>		High Power Proton Accelerators and Prospects, <i>S. Henderson</i>	World-wide Experience with SRF Facilities, <i>A. Hutton, JLAB</i>
10:15	Cooling in 30-50 T Solenoids	Stability & Alignment for NSLS-II, <i>S. Sharma, BNL</i>		Technical Challenges of FRIB, <i>R. York, NSCL</i>	RF Systems for Super-conducting Linacs, <i>W. Anders</i>
10:30	Coherent e-Cooling Exp.				
10:45	Acceleration in Optical PBG Structures, <i>R. England, SLAC</i>	Axis Determination of Pulsed Solenoids	M A N N E D 1 - 1 6 0	Project X—New Multi Megawatt Proton Source, <i>S. Nagaitsev</i>	Progress on SRF for the Cornell The NSLS-II RF Systems
11:00	Advanced PBG Structures	Extruded Al Chambers		Commissioning of 20MV SRF Linac Upgrade, <i>M. Marchetto</i>	1.3GHz SRF Cavity Prog. at FNAL
11:15	Diamond-Loaded Structure	Thin Film Coatings			
11:30					
11:45					
12:00	12:00 to 13:30: Lunch Break			12:00 to 13:30: Lunch Break	
....					
13:00	North Ballroom	South Ballroom	Colliders Light Sources & FELs Applications of Accelerators, Tech Transfer, Industry	Broadway Ballroom	
	<i>Chair: Matthew Poelker</i>	<i>Chair: Liu Lin</i>		<b>Pleenary Talk</b> Understanding Nuclear Physics with Accelerators, <i>Abhay Deshpande, Stony Brook University</i>	
13:30	Cathodes for Photoemission Guns, <i>L. Cultrera, CLASSE</i>	Would >50 MV/m with SRF Cavities? <i>T. Tajima, LANL</i>		<b>Pleenary Talk</b> Science with Light and Neutron Sources, <i>Sunil K. Sinha, University of California San Diego</i>	
13:45	Beam in the J-PARC	SRF Materials R&D, <i>L. Cooley, FNAL</i>			
14:00	Rare Isotope Program				
14:15	High-Power Options	In-situ Plasma Surface			
14:30	ATLAS Upgrade	SRF Cavity Fabrication Errors			
14:45	Flux-coupled Cyclotron	Hydroformed SRF Cavities			
15:00	Isochronous NS FFAG	Cavity & Cryomodule Design			
15:15					
15:30	15:30-16:00 Coffee Break			Closing Remarks	
	Broadway Ballroom			Saturday, April 2: Tour to BNL	
	<i>Chair: Victor P. Suller</i>			There will be busses leaving the Marriott at 8:15 am & returning at 5:30 pm.	
16:00	Louis Costrell Honorary Awards Session				
16:15	Students Poster Award, New APS-DPB and IEEE-NPSS Fellows, IEEE-NPSS				
16:30	Particle Accelerator Science and Technology Awards, US Particle Accelerator School Awards, IEEE Doctoral Student Award, APS/DPB Outstanding Doctoral Thesis in Beam Physics, Robert R. Wilson Prize for Achievement in Physics of Particle Accelerators				
16:45					
17:00					
17:15					
17:30					
18:00					
19:00					
19:30					
20:00	Conference Dinner 19:30 - 21:00				
21:00					

Conference Floors

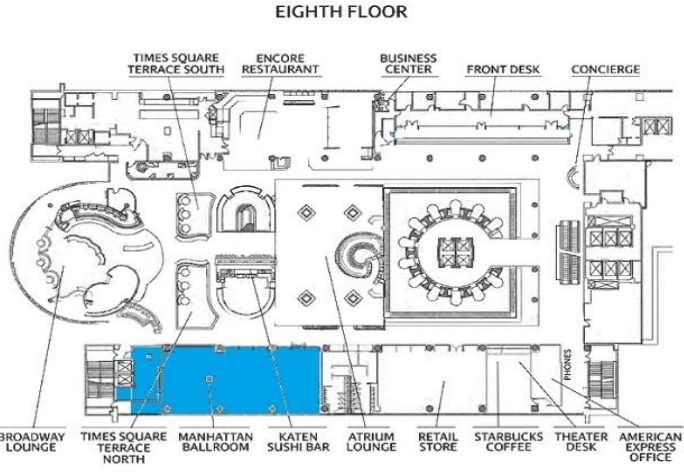
Exhibitors & Registration



Banquet & Scientific Programs



Chairmans Reception



Legend
Accelerator Technology
Advanced Concepts and Future Directions
Applications of Accelerators, Tech Transfer, Industry
Beam Dynamics and EM Fields
Colliders
Instrumentation and Controls
Light Sources and FELs
Sources and Medium Energy
Pleenary and Awards