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THE JOINT ACCELERATOR CONFERENCES WEBSITE, JACoW: AN OPEN ACCESS WEBSITE FOR THE PUBLICATION OF CONFERENCE PROCEEDINGS IN ACCELERATOR SCIENCE AND TECHNOLOGY

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INTRODUCTION

The Joint Accelerator Conferences Website (JACoW), at http://www.JACoW.org came into being in the mid-nineties with the publication of the first electronic set of European Particle Accelerator Conference (EPAC) proceedings on the World Wide Web, on a server located at CERN. The publication of that first set of conference proceedings 18 years ago has developed into an international collaboration in electronic publication of accelerator science and technology conference proceedings, with at the time of writing, 18 collaborating conference series and 167 sets of proceedings published. The story of how this came about, and the lessons learned along the way, are described by the author who has been part of this exciting adventure from the earliest days. This article will avoid detail of the technicalities of electronic publication, which are fully documented at the site mentioned above. It will simply tell the tale of JACoW, the people involved and their adventures.

ONCE UPON A TIME …

As the era of electronic publication dawned in a world where the Web was still largely unknown, the PAC'95 and EPAC'96 editors prepared to embark upon totally new proceedings production methods using Adobe Acrobat software, then in its infancy, to distill PostScript files (PS) to produce Portable Document Format files (PDF) for publication on CD-ROM and the Web.

This story begins when CERN's John Poole, who was later to become the JACoW Collaboration's first Chair, and I, who had been responsible for EPAC Scientific Secretariats and proceedings production since 1988, were encouraged by Steve Myers, CERN, a Chair of the early EPAC Organizing and Scientific Programme Committees, to prepare the way towards electronic publication of EPAC proceedings for publication on CD-ROM.

Since the first big event embarking on electronic publication was to be PAC'95, John and I asked Bob Siemann[†1], SLAC, the PAC'95 Scientific Programme Committee Chair, for permission to join the proceedings office team in Dallas, Texas and to visit SLAC following the conference to get hands on experience processing the contributions.

PAC'95 authors had been asked to hand in their contributions to the conference proceedings on diskettes together with a hard paper copy. Figures 1 and 2 show examples of a diskette and a CD-ROM for younger readers. More mature readers will be reminded of how much our tools and technology have

Figure 1: Reminder of what a diskette looked like in the mid-nineties.

Figure 2: Image of a CD-ROM.

changed in two decades.

A couple of diskettes were tested during the conference, without raising any alarm signals. So it was upon our arrival at SLAC that we were halted in our enthusiastic and optimistic tracks. So many files would not process correctly. Hitting "distill" produced the most unexpected results, from illegible fuzzy text, to sparks and stars darting across or around the screen. Or simply a complete blackout. But hardly a publishable paper in sight!

Although Adobe Acrobat in version 2 was very basic in those days, this was not the only reason for the lack of success. It was due to a high degree to the recommendation to LaTeX users (about 70% of more than 1000 contributors) to use Computer Modern Fonts. Though they printed well, the documents were almost illegible on a computer screen. We learned later that our PAC'95 colleagues had to reformat all LaTeX contributions with Times and Symbol fonts, delaying publication by a year.

During the short time we remained at SLAC, the sample of files processed revealed an alarmingly high failure rate of 80%. Apart from the LaTeX font problem, the most common issues were related to the preparation of figures and graphics, and to the large size of files due to the use of scanned images. Furthermore, numerous authors had not managed to include figures in their files, so provided them on paper … With a limit of around 1 MB per diskette, other authors submitted several diskettes, one with text and others with figures …

We can laugh at these recollections today, but at the time, while "panic" would be too strong a word, we realized that we were at the very beginning of a learning curve and that we would need to invest considerable time and effort in the preparation of templates, as well as clear instructions and guidelines for the preparation and submission of files, and to promote author, as well as editor education. From a SLAC colleague's living room sofa, I wrote up my trip report with a suggestion that for EPAC'96 in Sitges, we bring together a team of editors to work together *during* the conference to:

a) share experience of electronic publication techniques, and

b) work with authors present at the conference to identify problems and solve them on the spot, contributing to author education.

That original team at EPAC'96, with the job of processing around 800 contributions during the week, consisted of John and I, a CERN technical student, together with the editor of the next EPAC (Leif Liljeby from the Manne Siegbahn Institute, Stockholm (EPAC'98)), the editor of the next APAC (Yong Ho Chin, KEK (APAC'98)), the editor of the next PAC (Martin Comyn, TRIUMF (PAC'99)), and a few local people from Barcelona.

This "JACoW model" brought together the people responsible for the electronic publication of the conference proceedings within the different regional series, to work and learn together. It has been so successful that since 1996, all PAC, EPAC and APAC - now merged into IPAC - conferences have adopted it, as have the majority of the other JACoW conferences, whose editors normally get hands on experience in electronic publication techniques during IPACs each year, as well as during the events organized within their own series.

TEMPLATES AND GUIDELINES

To avoid the difficulties experienced in connection with PAC'95, templates and guidelines for authors were prepared and tested in preparation for EPAC'96.

A serious problem had been revealed during PAC'95 whereby files that were opened and saved across different platforms (for example Windows PC ↔ Macintosh) or opened with different versions of Word, often developed severe formatting problems. Due to these frequent incompatibilities, authors were instructed to submit not only the original source (Word, LaTeX, etc.) and figure files, but also a PS file of the complete contribution, together with information concerning the platform on which the files had been prepared, noting also the software and versions used. It was expected that editors would then simply distill the PS files to produce publishable PDF files, and avoid the cross-platform formatting incompatibilities.

As in life, reality doesn't always match expectation. We discovered that many authors did not know how, or were not equipped, to produce a PS file … Since this was the only format which would allow an editor to capture the contribution exactly as prepared by the author, it remained a stumbling block for many years. The quality of PDF files produced by most software these days however is so improved that it has been possible to drop the PS file requirement, to encourage submission of PDF files, which are directly re-processed by satisfy JACoW requirements.

While the original APAC/EPAC/PAC proceedings format, with the title across the full paper width and two-columns was maintained, paper-size standards became a new constraint.

Prior to electronic publication, camera-ready contributions for conferences on both sides of the Atlantic were typed onto the same outsize paper, which was then shrunk or reduced in photo-reproduction to produce the hard copy volumes in A4 or US Letter format. For electronic publication, the necessity to be able to download files prepared in A4 or in US Letter format, and print on both paper sizes anywhere in the world, required the development of special "JACoW-size" paper.

It was the local EPAC'98 editor, Leif Liljeby of the Manne Siegbahn Laboratory (MSL) who, whilst working on PAC'97 papers at TRIUMF, proposed a solution to this problem which consists of cropping the PDF file to the minimum dimensions of A4 width and US Letter height (i.e. 210 by 279 mm). By doing this, PDF readers will automatically set the text area in the centre of the page when printing. Unfortunately, templates for both paper sizes are still necessary and these are set up to minimize the work involved in re-sizing the document.

The above measures reduced the initial processing failure rate from 80% at PAC'95, to 20% a year later. The EPAC'96 proceedings were published electronically only four months after the conference. Over the years, new features in the Acrobat software and associated plug-ins have enormously facilitated the job for editors. The 20% problem rate was gradually reduced to a stable 10%, mainly due to authors not using the templates and often just not reading or following the instructions.

But since life is an eternal recommencement, no sooner had electronic publication techniques been understood and streamlined, than the accelerator community, realizing the enormous value of the JACoW archive, recently asked JACoW editors to pay greater attention to the quality of citations and references to improve the impact factor. We are seeing today therefore an increase in the failure rate due to poor preparation of references and author education again becomes important.

THE JACoW.ORG WEBSITE – PROCEEDINGS

At the outset of electronic publication in the mid-nineties, proceedings were prepared electronically to produce a CD-ROM from which hard copy volumes were printed for distribution to delegates and libraries. EPAC'96 also published the files at a website at CERN. It was Ilan Ben-Zvi of the Brookhaven National Laboratory (BNL), the PAC'99 Programme Committee Chairman, who suggested that it would

be useful for sister conferences in the APAC/EPAC/PAC series to publish their proceedings at the same site. This was rapidly agreed and soon PAC'95 and '97 proceedings were added to those of EPAC'96, followed by EPAC'98, APAC'98, and PAC'99, and the JACoW.org site took root.

Since that time, almost all established accelerator conference series have joined what has grown into an international collaboration in electronic publication. The number of sets of proceedings has reached 167 (around 100 GB) – including those scanned from the pre-electronic era by PAC, EPAC, Linac and Cyclotrons. CERN's Ronny Billen, who is responsible for the publication of the files at the CERN site, follows developments carefully. During 2014 the site received over 4,300,000 hits of viewed traffic (excluding traffic generated by robots, worms, or replies with special HTTP status codes), with 2660.92 GB bandwidth, mainly taken by PDF downloads, i.e. papers, posters and presentations. There were over 73,000 visitors and over 142,000 visits.

Full Boolean searches are possible and once the search has been submitted it can be refined using the Search Engine to search over specific data (authors, titles, keywords), which have been entered into hidden fields in the PDF files of the individual contributions as part of the editing process. The fact that the Search Engine only searches across the JACoW site means that only papers submitted to JACoW accelerator conferences are returned, thereby excluding the thousands of hits to be expected when searching across the whole internet.

While mirror sites were set up early on in Asia and North America with the aim of providing full functionality at high speed around the world, difficulties were encountered to provide the full functionality from the North American site. Since tests showed that performance from the European site was imperceptibly different to the North American site, the latter was abandoned. The Asian site at KEK is maintained to provide a backup.

THE JACoW.ORG WEBSITE – AUTHOR AND EDITOR INTERFACE AND DOCUMENTATION

While conference proceedings are physically archived at CERN and KEK, a library of useful information both for authors and for editors who are responsible for proceedings production, as well as documentation concerning the JACoW Collaboration, Charter, etc. has gradually been established.

This was originally also physically hosted at CERN, but has recently been moved to the Elettra Laboratory in Trieste. This resource is the fruit of years of accumulated experience.

THE JACoW COLLABORATION TODAY

The JACoW Collaboration today is formed of 18 conference series: COOL, CYLOTRONS, ECRIS, EIC, FEL, HIAT, ICALEPCS, IBIC (originally BIW and DIPAC), ICAP, IPAC (originally APAC, EPAC and PAC), the ICFA Advanced Beam Dynamics Workshops (ERL, Ecloud, High Luminosity e^+e^- Factories, FLS, HB), LINAC, MEDSI, NA-PAC (formerly PAC), PCaPAC, RuPAC, SAP and SRF.

Terms of Reference, which include certain boundary conditions, are published at the JACoW.org site and they govern the adhesion of new conference series. One important requirement is that editors of JACoW conferences participate in yearly Team Meetings where electronic publication techniques, and new software, are discussed and explored. This is to provide continuity and transmission of the accumulated experience and knowledge.

POLICIES AND REQUIREMENTS FOR PUBLISHING ON JACoW

The JACoW Collaboration has established several publication policies and technical requirements.

Publication policies are reviewed at the annual JACoW Team Meetings. Essentially, each conference series applying to join the JACoW Collaboration undertakes to publish at least three sets of JACoW-compliant proceedings in the form of papers. While it is posisible to include also posters and transparencies, this should not form a major fraction of the files.

Technical requirements are reviewed as the need arises and have evolved over the years as templates and guidelines have become more complete and macros have been added to facilitate the job for authors.

JACoW publishes all conference proceedings under the Creative Commons Attribution 3.0 license (http://creativecommons.org/licenses/by/3.0/), meaning that under certain conditions, essentially giving appropriate credit, it is possible to:

Share - copy and redistribute the material in any medium or format

Adapt - remix, transform and build upon the material for any purpose, even commercially.

AUTHOR EDUCATION

Since EPAC'96 John Poole's "dotting board" has gradually appeared at most JACoW conferences. The idea was to provide feedback to authors on the status of processing of their contributions, which, given the experience at PAC'95, was of prime importance.

The original board in Sitges displayed a list of all the contributions by programme code, and beside each, a coloured dot was placed manually to indicate the status following processing. There was a lot of curiosity around the board as the "Dotting Lady" updated the status every couple of hours. Authors could see at a glance that their contributions had, or had not, sailed through processing when assigned green dots (success) or red dots (problems requiring action either by the editor or by the author) and where the credit, or blame, was due …

The system was later integrated into JACoW's Scientific Programme Management System (SPMS) (see below) with other colours to follow the complete lifetime of a contribution: grey dots (papers uploaded), black dots (papers assigned to an editor), yellow dots (papers requiring proof reading following intervention by an editor in the source file) together with e-mail notification, list of problems encountered by the editor, and many more enhancements. Since the dotting board screen is configurable it is surprising that no Administrators have given in to the temptation to add brown dots. Perhaps to preserve the pride of the authors concerned …

The processing of contributions prior to and during conferences, has now been adopted by most of the JACoW Collaboration conference series. The procedure is becoming well known to authors and editors alike, and thus the publication of proceedings has speeded up significantly. While publication took four to six months (in some cases a year, or even two) in earlier years, a pre-press version of the proceedings of EPAC'08 (without table of contents, author index or preface, etc.) was published on the last day of the conference, and the final publication on JACoW was achieved less than three weeks later.

This kind of performance is now perfectly feasible, even for the largest events, but it relies on solid preparation, an excellent IT setup for the proceedings office, experienced editors, and of course authors who use the templates and follow the guidelines … and for those who do not, the Dragon Lady (Fig. 3) is called in …
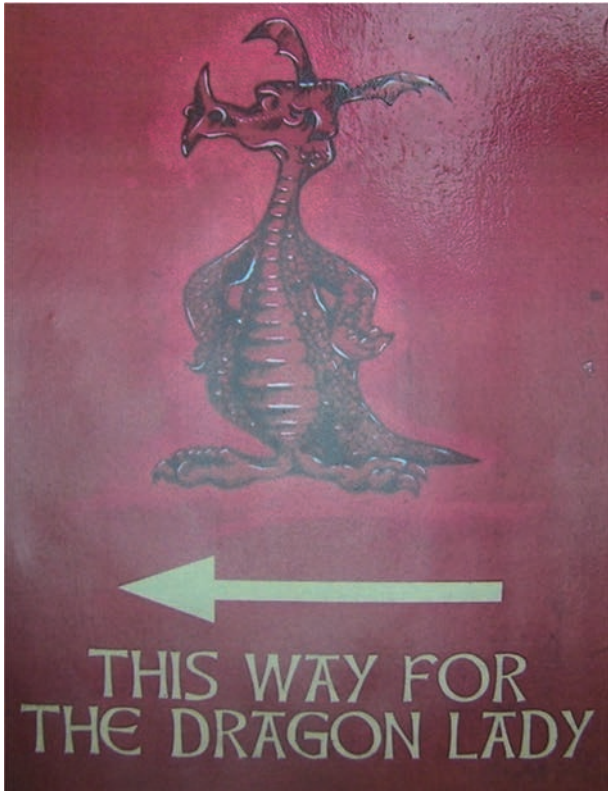
Figure 3: This way for the Dragon Lady …

Figure 4: View of an IPAC Proceedings office. Around 20 editors representing most JACoW events work flat out prior to and during a conference week, to publish all papers "pre-press" on the last day of the conference.

Figure 5: Volker Schaa, GSI (left), the second JACoW Chair, and John Poole, CERN, JACoW's first Chair, concentrating on a clearly problematic paper during IPAC'10 in Kyoto, Japan.

EDITOR EDUCATION

Conferences wishing to join the JACoW Collaboration undertake to ensure their editors receive appropriate training. This is done:

a) by sending editors to get hands on experience of processing of conference contributions, either during IPACs or during events in their own conference series (see Figs. 4 and 5),

b) during the annual JACoW Team Meetings which address all aspects not only of electronic publication techniques, but also information on the critical IT and software requirements, and very importantly the use of JACoW's SPMS, first introduced in 2004 (see below under Tools).

Hands-on Processing, Saltmines Duty

The best possible training in processing texts and transparencies is during a conference, in particular the larger events such as IPAC, when editors can get a complete overview of the process, which runs through the SPMS editorial module, whereby a contribution uploaded by an author is rendered publishable. This involves accessing the contribution by the editor, who checks that the paper respects the JACoW template, that the figures display correctly, and that the figures, references and citations are properly entered and correct.

Initial statistics relating to processing of contributions usually reveal a 50% initial "green dot", a 40% "yellow dot" and a 10% "red dot".

The green dot papers go forward to a Quality Assurance procedure where the paper is picked up by a different editor and double-checked. The authors of initial yellow dot papers are invited to accept or reject the modifications introduced by the editor. When an author accepts the editor's corrections, the status is automatically changed to green. If the author has further comments, these are made via e-mail with the editor in chief, who arranges for the paper to be finalized according to the author's wishes. The authors of red dot papers are invited either to re-submit, or to contact the proceedings office to work

on the problems.

An IPAC Proceedings Office has usually around 20 editors (Figs. 4, 5 and 6). Half of these, the seasoned experts, arrive a few days before the conference with the aim of processing around 80% of the contributions before delegates arrive. The other half, usually with a number of novice editors, arrives at the outset of the conference. Novices sit beside the experts and are mentored throughout the week on techniques.

Working in an IPAC proceedings office is sometimes called "Saltmines Duty", since the areas allocated have on occasion, and even more often than we would wish, been located in basements, or windowless areas of convention centres. The "core" editorial team works for 10 days in a row. They arrive very early each morning, and leave often long after the last of the delegates. Saltmines Duty during the winter is particularly difficult since editors often do not see the light of day for up to 10 days.

The IT setup of a proceedings office is crucial and when this job has been well done, the editors have an easier ride. When the authors read and follow the templates and guidelines (unfortunately not the majority), the editors might even get some time off to enjoy the city and social events … Figure 6 shows the JACoW Saltmines Team at IPAC'14.

Team Meetings

The annual Team Meetings, which rotate around the regions, are the occasion for all team members to come up to date with new software and techniques, new SPMS functionality, etc. and to plan for the implementation of new functionality or procedures as requested by Stakeholders (see below). The announcements, programmes and organization of the Team Meetings are published at the JACoW.org site.
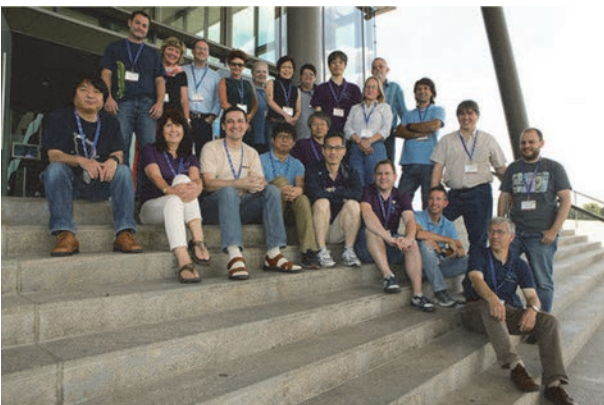

Figure 6: The JACoW "Saltmines" Team at IPAC'14.

TOOLS, SOFT- AND HARDWEAR

The speedy and efficient publication of conference proceedings has seen the development and implementation of several tools, scripts and procedures as described below.

SPMS

The Scientific Programme Management System (SPMS) is an Oracle based tool, which is now used by almost all JACoW conferences. It deserves some description in this article.

Matt Arena of Fermilab is the designer whose skill, and patience with demanding conference administrators and editors, has crafted the tool to what it is today. He took the PAC'01 and EPAC'02 systems and merged them into the first version of SPMS used in connection with EPAC'04.

Each conference opting to use the SPMS pledges to abide by a certain number of obligations, including the strict observation of JACoW's privacy policy to limit the use of the e-mail utility to normally only one general conference announcement to the specific conference mailing list.

Individual conference instances are created at the SPMS regional centres at CERN, KEK and Fermilab. They are coupled to a copy of the Central Repository at CERN, of profiles of individuals working in the accelerator field, who have contributed to, or attended accelerator conferences. The Central Repository contained some 5000 profiles upon its creation in 2004. It now contains close to 38,000 profiles of individuals working at almost 4800 different institutes and companies all over the world.

Authors create their own profiles, or profiles of their co-authors, which are all checked by JACoW's Repository Manager, Sue Waller of Daresbury Laboratory. Sue checks for duplicates, and also approves the requests for new affiliations. Profile/account owners customize and maintain their own profiles - all modifications are synchronized between conference instances and the Central Repository, and in turn synchronized with all other live SPMS instances - and indicate the mailing lists of the different conference series for which they wish to receive announcements. This means that individuals use the same profile to register, or to submit contributions, for all JACoW conferences using the SPMS, and this simplifies the procedures for authors, editors, registration staff and budget holders.

The SPMS, under General Public License (GPL) and therefore freeware, was originally developed as a support for

editors/scientific secretariats for the management of activities relating to the scientific programme, ranging from abstract submission through to proceedings production. Over the years, a huge amount of useful functionality has been added. The most significant includes:

- registration of delegates and exhibitors
- forms creation
- budget status
- refereeing
- support for the activities carried out by members of the programme committee, for example the entry of proposals for oral presentations, assigning committee preferences of contributions for different types of presentation, etc.
- session organization, including automatic generation of programme codes
- poster session management during the conference
- an editorial interface to log all activities relating to the submission of contributions to the proceedings: submission of files by authors, upload/download between a file-server and the editor's desktop, and a processing status interface, also visible for authors via their profiles/accounts
- numerous reports and data extracts.

Because the SPMS handles activities related to exhibition and delegate registration as well as to the scientific programme management, an excellent overview of the conference as a whole is easily achieved. The conference income can be calculated and the statistics are invaluable for precise planning of all events. Each instance is a useful archive for the next events in the same series.

Upon publication, the metadata pertaining to each JACoW conference managed using the SPMS is generated in INSPIRE-compliant format. It is also repatriated to the Central Repository for users to be able to retrieve statistics and other information for all past events.

JACoW is indebted to the Fermilab management for allowing Matt to do at least some of the development work during his very busy "normal" work time.

Piping of Data from SPMS to Conference Websites

Ivan Andrian, JACoW's current Chair, and Stefano Deiuri of Elettra have written scripts that extract data from SPMS. For instance, data concerning registered participants, exhibitors, booth reservation for exhibitions, the programme of oral

presentations, statistics concerning abstract submission or paper upload, can be displayed directly at the conference website. This ensures that the conference website is up to date and avoids fastidious maintenance for the organizers.

Server for Upload of Contributions

In earlier days each conference was responsible for setting up a server for the upload of contributions to the proceedings. In recent years the server set up at PSI, Villigen in Switzerland by Jan Chrin has been made available for the use of all conferences that wish to use it. This greatly simplifies the job for the smaller organizing laboratories.

Upload/Download Scripts

Ivan Andrian is the author of what are known as the "upload/download" scripts, which automate the route of contributions uploaded by authors to the server ready for download and processing by an editor, and re-uploading when processing is complete.

JACoW.org

As mentioned above, while proceedings of conferences are archived at the CERN and KEK sites, the JACoW documentation is published at a site hosted at Sincrotrone Trieste, Italy. Stefano Deiuri is the website designer. Charlie Horak of the Oak Ridge National Laboratory (ORNL) manages the content.

Poster Session Management

As any person who has presented a poster at a JACoW conference knows, acceptance for publication in the proceedings of a poster presentation is dependent upon four criteria: the paper has obtained green dot status and has been quality assured, the poster has been posted, manned by an author who is able to explain the work to delegates, and of acceptable quality - manuscripts of contributions to the proceedings are not acceptable. In earlier years the Poster Session Managers checked that the three flags relating to the poster presentation criteria were respected during the session, and later accessed SPMS to enter the status.

Ivan and Stefano have recently developed an application that allows the Poster Session Managers to access SPMS from the poster session floor, and to enter the status of presentation directly into SPMS using a tablet. The publication status in

SPMS with three OK presentation flags and one publication QA OK flag is immediately recorded as "publishable" or "not publishable". Authors can see this status in the log of the SPMS and are able to contact the editor should there be any misunderstandings.

Scripts

Volker Schaa of the Gesellschaft für Schwerionenforschung mbH (GSI), JACoW's former Chair and a world LaTeX expert, is the author of the scripts which automate the production of publications such as the abstracts brochure or conference programme by extracting data from SPMS to produce a printable version in numerous formats to suit most conference series. He has also developed a particular gem of a script that ties up the whole proceedings with the insertion of metadata from SPMS (or other tools) in the PDF files (automatic generation of keywords, calculation and insertion of page numbers and banners, etc.) ready for electronic publication on JACoW.

Software

A very important item of the software used by JACoW editors is Adobe Acrobat Pro, together with a plugin called Enfocus PitStop, which allows editors to edit in PDF files, thus avoiding opening the source files. The IPAC conferences cover the cost of purchase and upgrades of this essential software for the use of the whole Collaboration.

THE JACoW CHARTER

With the increasing number of JACoW Collaboration conferences, it became necessary to review JACoW's modus operandi. In the early days, JACoW had an elected Chair, Deputy Chair and a Coordinator/Secretary working with what was known as a "Team", composed of the past, current and future editors in each of the conference series. A "Steering Committee" composed of the past, current and future SPC Chairs in each conference series was asked to decide on issues of general interest during a Steering Committee meeting held yearly, alternating between each regional PAC conference.

The JACoW Collaboration has evolved significantly over the last three years.

Stakeholders

All JACoW Team (editors and experts) and SPC Chairs are Stakeholders, together with representatives of the accelerator community from all major laboratories who are volunteers. The aim of this new organization is to include the accelerator community at large in the management of this common resource, to increase awareness of the strengths and weaknesses of the JACoW model and for the Collaboration to be able to call on support as necessary.

JACoW Stakeholders now propose JACoW policy and issues requiring attention. An elected Board of Directors works together with the Team to implement and report back to the annual Stakeholders meetings held during each IPAC. The photo in Fig. 7 was taken during the Stakeholders Meeting during IPAC'14 in Dresden.

Since adopting this modus operandi, several developments have been proposed and are being actively pursued by the Team, in particular concerning the possibility to create listings of publications of individual authors, for use for example in career development. Another development is the improvement of citations and references in JACoW publications to improve the impact factor and again enhance JACoW's image and usefulness.

CONCLUSION

JACoW is a unique, and one of the oldest examples of open access publication. The EPAC/PAC and IPAC Organizing Committees in 2004 and 2010 recognized its usefulness to the accelerator community[†2]. The text of the 2004 citation is reproduced below. In Figs. 8 and 9 Christine and John, and

Figure 7: Reporting to Stakeholders during IPAC'14. From left to right Ivan Andrian, the then Deputy JACoW Chair, Volker Schaa the JACoW Chair, and the author, the JACoW Coordinator.

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†2 http://www.jacow.org/index.php?n=About.AwardsToThe Collaboration

Figure 8: Christine Petit-Jean-Genaz and John Poole receive the EPS-AG/PAC award on behalf of the JACoW Collaboration, during EPAC'04 in Lucerne, Switzerland.

Figure 9: Christine Petit-Jean-Genaz and Volker Schaa receive an award on behalf of JACoW from ACFA, presented by Katsunobu Oide, KEK, the IPAC'10 OC Chair in Kyoto, Japan.

Christine and Volker, receive the awards on behalf of the JACoW Collaboration.

Acknowledgement of the Joint Accelerator Conferences Website Collaboration

"From tiny acorns mighty oak trees grow. An idea from Ilan Ben-Zvi in 1996, nurtured by others, has finally spread its branches as the JACoW Collaboration reaches maturity in 2004.

The vision of a Joint Accelerator Conferences Website, maintaining a central database of information of all main participants in the accelerator community and holding electronic copies of all the papers published at the conferences under its umbrella, has taken eight years to reach fruition.

Seven conference series are now involved (PAC, EPAC, APAC,

CYCLOTRONS, DIPAC, ICALEPCS, LINAC). The Russian PAC, RUPAC, is about to join, as are several other conference series. A recent decision has confirmed funding to complete the electronic scanning of all PAC and EPAC proceedings back to 1967 and 1988 respectively. The papers will be available to all on the central JACoW site.

At this conference, EPAC'04, the Scientific Programme Management System (SPMS) is being used for the first time. The central database will allow standardised procedures for submission and publication of papers, and will be of immeasurable benefit to those who work so hard behind the scenes to ensure every conference is a success. Delegates will also see improvements, with developments such as the inclusion of facilities for registration, expected to follow.

While many individuals have played a part, none would begrudge recognition to the two people whose foresight and enthusiasm have served to blend so many varied ideas together: John Poole, the Chairman of JACoW, and Christine Petit-Jean-Genaz, the EPAC Conferences Coordinator.

The Organising Committees of the EPAC and PAC conference series would like to acknowledge their achievement and thank them, and all those involved in JACoW, for their efforts to further the dissemination of scientific knowledge throughout the accelerator community."

The author's involvement in JACoW and in promoting electronic publication has also been recognized via several personal awards[†3].

It is however necessary to underline that while JACoW is totally free of cost to readers this does not mean that there is no cost. As outlined in this article, laboratories and JACoW conferences contribute in different ways to the functioning of the Collaboration:

- each conference covers the cost of the hotel accommodation and per diem for the editorial team in the proceedings office at each event,

- each conference ensures that its editor gets appropriate training and covers the cost of attendance at JACoW annual

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[†3] The European Physical Society Accelerator Group's Achievement Medal, the Robert H. Siemann Prize for services to PRST-AB, and the European Physical Society Gero Thomas medal.

Figure 10: The group photo taken at the last JACoW Team Meeting in Melbourne, Australia in January 2015.

Team Meetings and their travel to participate in a proceedings office team either within their series, or at a major event such as IPAC (Fig. 10 is the group photo taken at the last JACoW Team Meeting in Melbourne, Australia in January 2015),

- each conference covers the cost of the IT installation required to support the activities of the proceedings office,
- PSI hosts the fileserver for the upload of contributions,
- IPAC conferences cover the cost of the Acrobat and Pitstop software used by all JACoW conferences,
- CERN, KEK and Fermilab host the SPMS instances and provide the manpower for their maintenance,
- CERN hosts the proceedings archive,
- Sincrotrone Trieste hosts the JACoW documentation archive.

There is thus a cost and JACoW is only sustainable if the above model is supported by all of the above players.

ACKNOWLEDGEMENTS

The whole accelerator community is indebted to the laboratories which support the activities of the Collaboration, to the Chairs of the IPAC Organizing Committees who from the beginning have strongly supported this initiative, be it through the purchase of software, by facilitating the participation of their own staff in JACoW activities, or by encouraging other laboratories to do likewise.

The accelerator community is also indebted to the individuals, many of whom are mentioned in this article, who have worked so hard to shape the destiny of the JACoW adventure and who are responsible for the happy outcome.

If the JACoW Team has often been likened to a family, it is quite an extended one, since it is composed of individuals from different regions, nations, cultures and philosophies, with varied skills and competences, and frequently upon joining the Team without experience of electronic publication, other than having authored an article …

Older family members are delighted to welcome the newcomers, to help and encourage them to acquire the technical skills, and to see them gradually lose their shyness and become more assertive, giving back to the Collaboration the knowledge they have accumulated during their training period, as they in turn train others at the annual Team Meetings. Some enjoy it so much that long after the proceedings of their own conferences have been published they continue to sign up for Saltmines Duty, and contribute to the successful publication of the proceedings of major conferences. A truly international family indeed.

Twenty years along the road, papers still do not process themselves, and authors do not always read the instructions, or follow them, or understand just how much work goes into prompt publication. The JACoW Team will be in business for a while to come.