

THE ELETTRA STORAGE-RING FREE-ELECTRON LASER: A SOURCE FOR FEL STUDIES AND USER EXPERIMENTS

G. De Ninno, E. Allaria, M.B. Danailov, E. Karantzoulis, C. Spezzani, M. Trovò,
ELETTRA, Basovizza, Italy
M. Coreno, CNR-IMIP, Trieste, Italy
G. De Ninno, University of Nova Gorica, Nova Gorica, Slovenia
E. Ferrari, Università degli Studi di Trieste, Trieste, Italy
G. Geloni, European XFEL GmbH, Hamburg, Germany

Abstract

The paper will report about the last achievements of the ELETTRA storage-ring FEL. The latter include:

- a) a noticeable improvement of the source performance (generation of coherent radiation at 87 nm, attainment of a very good shot-to-shot stability);
- b) general FEL studies, relevant to single-pass devices (characterization of the angular distribution of harmonic emission, analysis of the frequency pulling effect), and
- c) first user experiments (pump-probe on gas phase and solid-state samples).

**CONTRIBUTION NOT
RECEIVED**