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First EEHG lasing at FLASH and future prospective

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External seeding via Echo-Enabled Harmonic Generation (EEHG) has been established for the first time at FLASH. This major achievement is a critical milestone towards FLASH2020+, the upgrade project for the FLASH facility, which will enable external seeding at MHz repetition rates at a user facility. Compared to standard SASE operation, the spectral quality and the longitudinal coherence are drastically improved and will ultimately allow for the next generation of user experiments. In this contribution, we will report on the latest highlights of the seeding efforts and present the foreseen performance of the new FLASH1 after the upgrade.

Footnotes

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Authors: THIEL, Andreas (University of Hamburg); SAMOILENKO, Dmitrii (University of Hamburg); ROUSSEL, Eléonore (Laboratoire de Physique des Lasers, Atomes et Molécules); FERRARI, Eugenio (Deutsches Elektronen-Synchrotron); PANNEK, Fabian (University of Hamburg); PARASKAKI, Georgia (Deutsches Elektronen-Synchrotron); PENCO, Giuseppe (Elettra-Sincrotrone Trieste S.C.p.A.); WENZEL, Hendrik (University of Hamburg); HARTL, Ingmar (Deutsches Elektronen-Synchrotron); ZEMELLA, Johann (Deutsches Elektronen-Synchrotron); ROENSCH-SCHULENBURG, Juliane (Deutsches Elektronen-Synchrotron); HONKAVAARA, Katja (Deutsches Elektronen-Synchrotron); SCHAPER, Lucas (Deutsches Elektronen-Synchrotron); ASATRIAN, Margarit (University of Hamburg); TISCHER, Markus (Deutsches Elektronen-Synchrotron); VOGT, Mathias (Deutsches Elektronen-Synchrotron); MOHAMMAD KAZEMI, Mehdi (Deutsches Elektronen-Synchrotron); CINQUEGRANA, Paolo (Elettra-Sincrotrone Trieste S.C.p.A.); NIKNEJADI, Pardis (Deutsches Elektronen-Synchrotron); VAGIN, Pavel (Deutsches Elektronen-Synchrotron); Dr SCHREIBER, Siegfried (Deutsches Elektronen-Synchrotron); ACKERMANN, Sven (Deutsches Elektronen-Synchrotron); Dr LANG, Tino (Deutsches Elektronen-Synchrotron); HILLERT, Wolfgang (University of Hamburg)

Presenter: FERRARI, Eugenio (Deutsches Elektronen-Synchrotron)

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