

Efforts for Improving XFEL Performance at SACLA

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Invité par Marie-Emmanuelle COUPRIE

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Grand Amphi SOLEIL

Séminaires

In parallel with the user operation, continuous efforts have been made to improve the XFEL performance at SACLA. The laser pulse intensity of more than 0.5 mJ is now obtained at the photon energy range of 5-10 keV. For higher FEL gain, the electron bunch compression and the peak current has been increased, and the photon pulse duration of less than 10 fs (FWHM) is currently available.

To exploit a novel experimental methodology, Two-color double-pulse operation has been demonstrated and already offered to various user experiments, such as X-ray pump X-ray probe measurements. To improve usability and efficiency of the facility, the second undulator beamline (BL2) is planned to be installed during the summer shutdown of 2014. Following the installation of BL2, a pulse by pulse electron beam distribution will be started from January 2015 using a kicker magnet and a DC twin-septum magnet. This beam distribution will also be applied to the beam injection to the SPRING-8-II storage ring. The talk will cover the two-color double-pulse operation, the development of the electron bunch distribution system and recent operation status and problems.



Ce séminaire sera suivi d'une pause-café



Formalités d'entrée : accès libre dans l'amphi du Pavillon d'Accueil. Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central, merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès).

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