

The Beams and Applications Seminar Series

Laser based timing and seeding of free-electron lasers with high harmonics

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**Bldg. 401, room B2100
Friday, Jan. 30, 1:30 pm**

Host: S. Milton, ASD

Advances in femtosecond laser technology provide large scale, long term stable, timing distribution, rf-synchronization as well as synchronization of multiple pulsed laser sources on a femtosecond time scale. Experimental results demonstrating 0.3 fs synchronization of independently mode-locked lasers, measured of broad bandwidth, is presented. This opens up the possibility to generate fully coherent femtosecond x-ray sources by seeding with short wavelength high harmonics. Possible fiber laser based systems for reliable laser drivers for photo injection and high-harmonic generation are discussed.

For more information visit

<http://www.aps.anl.gov/asd/physics/seminar.html>

Visitors from off-site please contact Yuelin Li
(ylli@aps.anl.gov, 630-252-7863) to arrange for a gate pass.

This ANL seminar series is a CARA activity and focuses on the physics, technology and applications of particle and photon beams. It is sponsored jointly by the ASD Division, the AWA group of the HEP Division, and the ATLAS group of the PHY Division.