

# **ACCELERATOR SEMINAR**

## **“Ultrashort X-ray Pulse Generation by Electron Beam Slicing in NSLS-II”**

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When a low energy electron beam crosses from top of a storage ring electron bunch, its coulomb force will kick a short slice from the core of the storage ring electron bunch. The separated slices, when passing through an undulator, will radiate ultra-short x-ray pulses at about 166fs. In the presentation, I will talk about the new approach to generate ultra-short x-ray pulses of the order of 100fs pulse length by electron beam slicing, and I will discuss our from start to end design of the electron beam slicing method in NSLS-II which includes the design of low energy bunch compressor, the design of the interaction of the linac bunch and the ring bunch and separation design of the synchrotron radiations of the core satellite.

**Thursday, March 19, 2015  
11:00 a.m.  
CEBAF Center, F113**

**Coffee before seminar beginning at 10:45 a.m.**