



John Adams Institute for Accelerator Science Lecture Series

Monday 9th September 2013 at 3:00pm
Fisher Room, Denys Wilkinson Building

Latest Results on PWFA and LWFA from UCLA

The lecture will be delivered by

**Prof. Chan Joshi,
UCLA**

Abstract: I will present latest results on PWFA and LWFA work carried out by the UCLA group. The PWFA work is carried out in collaboration with the SLAC group at the FACET facility. Two major results will be presented. The first is the successful application of the ionization injection scheme to produce extremely narrow energy spread bunches with energy on the order of the drive beam energy. The second is the demonstration of discreet but distributed injection of electrons in the PWFA causing a reduction of the transformer ratio.

The LWFA work carried out at UCLA attempts to quantify the relative contributions of the wakefield and direct laser acceleration in non-ideal LWFA experiments.

Finally I will describe recent work on spatial and spectrally resolved betatron spectra carried out by the LLNL/UCLA collaboration that has given information about the dynamics of the accelerating electrons inside the wake.