

Beams and Applications Seminar Series

This ANL seminar series 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.

Bldg. 401, room B2100

Friday, October 25

1:30 PM

Jin Wang

ANL - XFD

X-ray Visions of Fuel Sprays

Host: Katherine Harkay

A time-resolved technique using x-radiography has been developed for probing the fuel sprays close to the nozzle of fuel injectors. The measurement allows quantitative determination of the fuel density distribution in this optically impenetrable region with a time resolution better than one microsecond. Both line-of-sight point measurement and imaging by an ultrafast two-dimensional x-ray framing camera have been employed for elucidating the structure and dynamics of the sprays. Reconstruction has been performed to determine the radial density distribution of the sprays. The shock waves associated with the high-pressure and high-speed fuel spray, also visualized directly by x-radiography, will be discussed.

For more information visit

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

Visitors from off-site please contact
John Power (jp@anl.gov, 630-252-3191)
to arrange for a gate pass.