



Status of the National Ignition Campaign

Prof. R. Paul Drake

Joint Seminar with Atmospheric, Oceanic and Space Science

Wednesday, July 27, 2011 - 4 pm - FXB Building, Room 1109

Abstract

The National Ignition Campaign has the goal of producing net energy gain in a laser-fusion system. I have been keeping up with this effort through service on a review committee. I will go through a presentation reporting progress on the National Ignition Campaign, from a recent conference. This includes a discussion of demonstrating the required x-ray environment, of implementing the first stage of the tuning necessary to compensate for uncertainties in physical knowledge, and of the integrated capsule performance before and after the first tuning.

About the Speaker: Professor R. Paul Drake received his PhD in Physics from Johns Hopkins University 1979 after which he joined Lawrence Livermore National Lab. At LLNL, he led theoretical and experimental efforts on the Tandem Mirror Experiment, Novette and Nova, and directed the Plasma Physics Research Institute, while also being a professor at the UC Davis Applied Science Department. Prof. Drake joined the University of Michigan in 1996 where he is the Henry Smith Carhart Professor of Space Science, Director, Center for Radiative Shock Hydrodynamics and Director, Center for Laser Experimental Astrophysics. Prof. Drake pioneered the area of experimental astrophysics, aimed at improving understanding of astrophysical dynamics through laboratory research and devised a system for laboratory simulation of supernova remnants and for studies of high-Mach-number plasma flows. He is an international leader in High Energy Density Physics, having authored for the first textbook in the field. He is a fellow of the American Physical Society.