



THE CHINESE UNIVERSITY OF HONG KONG
Department of Physics
COLLOQUIUM

Progress Towards Inertial Fusion Energy

by

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Date: October 25, 2010 (Monday)

Time: 3:30 - 4:30 p.m.

Place: Rm 703, Mong Man Wai Building, CUHK

(Light refreshments will be served 20 minutes prior to the colloquium.)

ALL INTERESTED ARE WELCOME

Abstract

Recent advances in the National Ignition Facility (NIF) at the Lawrence Livermore Laboratory are placing within reach a critical milestone for demonstrating the feasibility of inertial fusion as an energy source. With the anticipated NIF results in sight, efforts to investigate optimized fusion energy systems are further invigorated. In this talk, we will briefly introduce the basic principles of Inertial Confinement Fusion (ICF) where DT targets are heated and ignited by laser or ion beam drivers. After reviewing the recent NIF results, we compare the pros and cons of different fusion drivers and various target options. We will present a new concept under study, the X-target for heavy ion beams, and describe the significant advantages offered by the new concept.

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