

DEPARTMENT OF PHYSICS
Centre of Advanced Studies in Physics
PANJAB UNIVERSITY, CHANDIGARH – 160 014, (INDIA)

Fax :+ 91-172-2783336
Tel :+ 91-172-2534466
Email: physics@pu.ac.in



PHS :

Dated : 03 Oct 07

TPSC SEMINAR NOTICE

SPEAKER: Dr. Arup Banerjee
Centre for Advanced Technology (CAT)
INDORE

TITLE: Collective oscillations of trapped Bose
and Bose-Fermi gas

DATE & DAY 11 October 2007, THURSDAY

Venue: Physics Seminar Hall

TIME: 4.00 p.m

Abstract: Collective oscillations provide important information about the many-body systems especially the nature of inter-particle interactions. The frequencies of collective oscillations of trapped alkali atom condensates have been measured in the laboratories with a very high precision. In this talk I will discuss how collective oscillations of confined atomic gases are modified by the inter-particle interaction. For this purpose I will consider two systems, namely, (a) trapped Bose-Einstein condensate in the large gas parameter regime and (b) a mixture of trapped Bosons and Fermions. I will present the results of our theoretical calculations of frequencies of few low lying modes of the collective oscillations by employing variational-sum-rule approach.

Tea shall be served at 3.45 P.M.

All interested are cordially invited to attend

(TPSC convener)