

**University of Mumbai – Department of Atomic Energy
Centre for Excellence in Basic Sciences**

C O L L O Q U I U M

"PHYSICS OF DIZZY NUCLEI"

By

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Abstract

Nucleus is a wonderful laboratory encompassing a diverse range of exciting phenomena at the frontiers of fundamental physics. Even features usually encountered in other areas of physics also find their reflection in nuclear studies. Nuclear Structure Studies have become exciting with the advent of a new generation of Gamma Ray Detectors and Heavy Ion Accelerators. It is now possible to generate nuclei at very high spin and study new features of their structure like shape changes, shape co-existence, breakdown of pairing correlations, band termination, magnetic rotation, identical bands, super and hyper-deformation in nuclei, phase changes in nuclear matter, nuclei far away from the stability valley and so on. I would like to highlight some of the salient physics that we have learnt in the recent years and also the enormous power and sensitivity of the some of the Detector Arrays currently in use as well those that are under construction or being planned.

Time : **15.45--16.45**
Date : **February 07, 2012**
Venue : **Prefab Seminar Room, PF-AG-14.**

All are Welcome