

Area Seminar

Title	Astrophysically Interested Highly Charged Ions for Probing Temporal Variation of the Fine Structure Constant
Date and Time	10/10/2013 14:30:00
Speaker	Dillip Nandy Senior Research Fellow PRL, Ahmedabad
Area	Theoretical Physics
Venue	Room No. 469
Abstract	<p>The possibility of temporal variation of the fine-structure constant $\alpha = e^2/(\hbar c)$ at the cosmological time scale is a subject of current interest involving particle, atomic and astro physics. Insights into this fascinating topic can be obtained from the spectral line analysis using a relativistic many-method in combination with their laboratory and/or astrophysical observations. In this seminar, I will briefly discuss different procedures for detecting any plausible variation of α in time and demonstrate large enhancement of this effect in the highly charged ions using a recently developed many-body method that could lead to astrophysical observation of the above subtlety in the remote past.</p>