

## Area Seminar

Title	Understanding of correlation behaviors in the calculations of atomic dipole polarizabilities using an ab initio many-body perturbation theory
Date and Time	17/05/2012 16:00:00
Speaker	Yashpal Singh
Area	Theoretical Physics
Venue	Room No. 469
Abstract	<p>It is necessary to go beyond the Hartree-Fock method (even in the relativistic case) to calculate the dipole polarizabilities in the atomic systems accurately. Understanding of the trends and dynamics of the correlation effects will be useful in the determination of these quantities more precisely. In this talk, I will explain an ab initio many-body method to evaluate dipole polarizabilities and highlight contributions from various correlations obtained using this method in few atomic systems. At the end, I will also briefly mention how the present study will be relevant to calculate the enhancement factors accurately for the studies of permanent electric dipole moments (EDMs).</p>