

***DEPARTMENT OF ASTRONOMY & ASTROPHYSICS***

***ASTRONOMY SEMINAR***

October 5, 2011

Speaker : Prof. Alec Boksenberg,  
University of Cambridge

Title : Evolution of the ionization state of the intergalactic  
medium through observations of QSO metal line  
absorption systems

Day, Date & Time : October 11, 2011 (Tuesday) at 1530 hrs

Venue : TAP Seminar Room (A269)

(A. Gopakumar)

***Abstract***

*Several bulk properties of the metal absorption systems seen against background QSO are shown to be almost invariant over a wide redshift range. The absorber components also exhibit strong short-range clustering but there is no clustering on any scale between composite systems. At redshifts lower than 2.7 the radiatively transferred cosmic ultraviolet background due to QSOs dominates the ionization of the absorbers. Extending to redshifts up to 4.4 the additional contribution from galaxies with deduced specific characteristics in the largely unobserved region 1-4 Rydberg contributes increasingly strongly relative to the falling intensity of the QSO background, and includes both the general galaxy background radiation and the inferred local radiation from individual galaxies associated with the absorbers.*