Physics Seminar

Speaker: Prof. Charles Liu  
CUNY/College of Staten Island

Time: 4 pm on Monday 5/24/2010

Location: Brooklyn College Ingersoll Hall Room 3438

Title: Galaxy Evolution at the Faint End of the Luminosity Function

Abstract:  
We have examined the faint-end slope of the rest-frame V-band luminosity function (LF), with respect to galaxy spectral type, of field galaxies with redshift z<0.5, using a sample of 80,820 galaxies with photometric redshifts in the Cosmic Evolution Survey (COSMOS) field. For all galaxy spectral types combined and separated, the faint-end slopes grow shallower with increasing redshift. The steepness of that slope at lower redshift could be qualitatively explained by large numbers of faint dwarf galaxies, perhaps of low surface brightness, which are not detected at higher redshifts. Some properties of one particular strongly evolving population, compact emission line galaxies, are presented in detail.