Title: Optical rest-frame spectroscopy to study the filaments and galaxy clusters outskirts at z~1

Abstract: The VIMOS Spectroscopic Survey of a Supercluster in the COSMOS field (VIS^{3}COS) aims to accurately map in 3-D a superstructure at redshift between 0.8 and 0.9, which contains 3 massive X-rays confirmed clusters (Finoguenov et al. 2007) and shows a striking filamentary structure in the HiZELS Hα survey at z=0.84 (Sobral et al. 2011). The ~500 spectroscopic confirmed members probe a wide range of densities and environments (from fields to the clusters outskirts and rich groups). The unprecedented nature of this survey (Paulino-Afonso et al., accepted for publication on A&A) allows a detailed study of the influence of the environment on the galaxy evolution as well as link observations and theories. In this talk I will present our work which aims e.g. to characterise the star formation activity and the ionised gas properties of galaxies. Our results point to a depression of the star formation and local changes on the electron densities with environment (depending on galaxy stellar mass) at z~1. And, since most of these changes occur in the cluster outskirts and filament-like regions, it is of the utmost importance to understand how the intense life in the galaxy clusters suburbs impacts the physical properties and shapes of galaxies.