

Gas in galaxies: the effects of environmental and feedback processes on galaxy evolution.

Il gas nelle galassie: gli effetti dei processi ambientali e di feedback sull'evoluzione delle galassie.

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The GASP survey has collected a multi-wavelength dataset for over 100 galaxies at low redshift to study environmental and feedback processes that affect the gas content of galaxies. These galaxies span a wide range of galaxy masses and are hosted in dark matter haloes over a broad range of masses, from rich galaxy clusters to groups, filaments and isolated galaxies. The survey is based on an ESO Large Program with the MUSE integral-field spectrograph that provides a detailed view of the stellar and ionized gas content of galaxies out to very large radii. These data is supplemented by observations at other wavelengths (ALMA, JVLA, ASTROSAT, Chandra etc) to study other phases of the gas (molecular, neutral, hot).

The student will use the GASP dataset to investigate the effects of environmental processes on the gas distribution and kinematics, and study the consequences for the galaxy star formation activity, AGN activity and structure.