



Département d'Astrophysique

Séminaires du DAp

Jeudi 06/12/2012, 11:00

Bat 713, salle de séminaires Galilée , CEA Saclay, Orme des Merisiers

A.SAINTONGE

MPE, Garching, Allemagne)

COLD GAS AS A PROBE OF GALAXY EVOLUTION

Observations of molecular gas in galaxies are now starting to transition from a "discovery" to a "survey" mode, since it is now possible to directly investigate the gas contents of large samples of normal galaxies, both at low and high redshift. Since cold gas is not only a direct tracer of the instantaneous potential of a galaxy to form stars, but also a much more sensitive probe of the mechanisms that affect the star formation process and the growth of galaxies, these surveys allow us to assess the relative importance of different channels for galaxy evolution. In this talk, I will review results from the COLD GASS survey, which has allowed us for the first time to quantify the scaling relations of gas contents with galaxy structural properties and understand the distribution of galaxies in the SFR-mass plane, but also to assess the relative importance of galaxy interactions, bar instabilities, stellar bulges and AGN in setting the global star formation efficiency of galaxies.

Contact : -