

Séminaire organisé par

**AIM & Le service d'Astrophysique
CEA/DSM/Irfu**

MOLECULAR GAS PROPERTIES IN EXTERNAL GALAXIES FOR BETTER UNDERSTANDING THE STAR FORMATION ACTIVITY IN THE UNIVERSE

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We currently have only a restricted picture of the star formation activity in galaxies, partly because we don't have sufficient resolution to locate with enough accuracy sites of star formation beyond the Local Group. With interferometers such as IRAM-PdBI, CARMA, SMA and especially now with ALMA, such issue can disappear. However these telescopes are heavily pressured and time allocated is rare.

In my talk, I will show that we can actually already increase our understanding of the processes of star formation in galaxies with single-dish telescopes, using strategically key chemical tracers. More precisely, I will present my work on the determination of the ISM properties in local starburst, spirals, AGN-dominated galaxies and early-type galaxies. Then, I will present some ISM properties in 'exotic' or more disturbed places such as in cosmic-ray dominated galaxies and in cooling flows seen in the Perseus cluster.

I will finish my talk by showing some recent results that I have acquired using interferometers propulsing therefore our knowledge to a much stronger and more detailed scale.

17 novembre 2011

11h00 Salle Galilée bât 713 C - Orme des Merisiers



Un café sera servi 15 mn avant le séminaire