



Séminaire organisé par

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



## TURBULENCE DISSIPATION AND THE CHEMISTRY OF THE DIFFUSE ISM

**P.LESAFFRE**

(LERMA/ENS Paris)

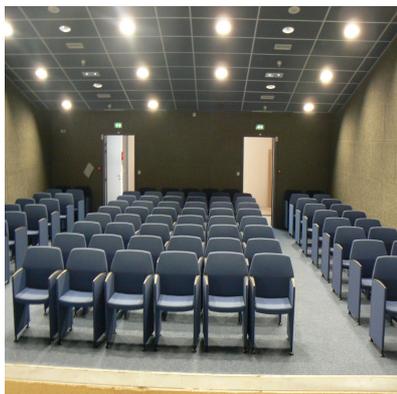
Large-scale motions in galaxies (supernovae explosions, galaxy collisions, galactic shear etc.) generate turbulence, which allows a fraction of the available kinetic energy to cascade down to small scales before it is dissipated. This dissipation can take the form of viscous, Ohmic or ambipolar friction and may assume various geometrical shapes (shocks, current sheets, vortices, filaments...). The local heating this generates may impact the chemical composition of the gas by opening routes for a warm chemistry otherwise blocked in the cold gas.

I will first focus on the impact of shocks on the production and excitation of molecules and how this helps us to interpret observations.

I will then present ongoing work to characterize the structure and dynamics of dissipation coupled to chemistry in the interstellar medium.

**16 mai 2013**

**11h00 Salle Galilée bât 713 - Orme des Merisiers**



**Un café sera servi 15 mn avant le séminaire**

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