



## Séminaire exceptionnel



### DYNAMICAL EVOLUTION OF THE INTERSTELLAR MEDIUM TRIGGERED BY SHOCK WAVE

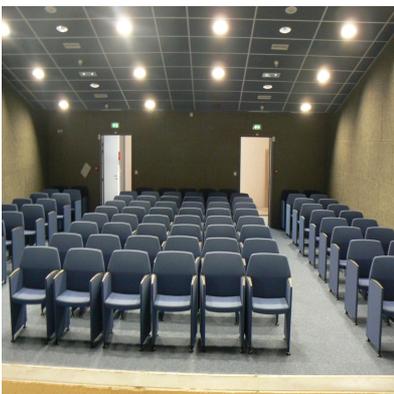
**TSUYOSHI INOUE**

National Astronomical Observatory of Japan, Japan

It is known that the interstellar medium has multi-phase nature due to radiate cooling and heating, and it is highly dynamic gas because of frequent supernovae. In this seminar, based on the results of recent MHD simulations, dynamical evolution of the ISM triggered by shock wave is discussed. I first review the evolution from diffuse warm atomic gas to HI clouds, and then molecular cloud formation and its evolution is discussed. In all its evolutionally processes, instabilities triggered by shock wave such as thermal instability and Richtmyer-Meshkov instability play important role. If I have time, influence of realistic multi-phase ISM structure on the cosmic-ray acceleration in supernova remnant is also discussed.

**Jeudi 8 octobre 2015**

**11h00 salle Galilée—bât 713 - Orme des Merisiers**



Pascale Chavegrand - secrétariat Irfu/SAp 01.69.08.78.27 [chavegrand@cea.fr](mailto:chavegrand@cea.fr)