Service d'Astrophysique
SÉMINAIRE

******

Jeudi 08/10/2015, 11h00

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

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.

Le cafe sera servi 10 minutes avant
Contact : pascale.chavegrand@cea.fr - Tel : +33 1 69 08 78 27
http://irfu.cea.fr/Phocea/Vie_des_labos/Seminaires/index.php