Séminaire organisé par

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

DUST DESTRUCTION AND FORMATION RATES IN THE MAGELLANIC CLOUDS, AND THE EVOLUTION OF DUST IN THE VERY HIGH REDSHIFT UNIVERSE

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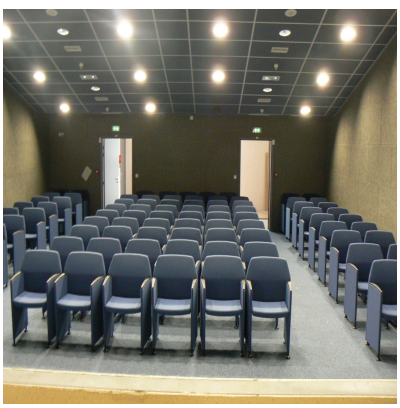
The presence of dust in galaxies has a profound effect on their spectral appearance and on the many processes that determine the physical, chemical, and thermal state of their interstellar medium (ISM). Despite the many different manifestation of interstellar dust in the Milky Way and external galaxies, its nature, origin, and evolution are still poorly understood.The understanding of the dust destruction rate by supernova shocks in particular is extremely important for understanding its origin. The amount of grain destruction determines whether the dust budget can be balanced by dust formation in stellar sources, or whether dust growth in molecular clouds is required. Due to the extensive wavelength coverage and known distance, the Magellanic Clouds offer a unique opportunity for studying dust destruction rates and lifetimes in the ISM. We present new estimates of dust destruction rates by supernova remnants in the Magellanic Clouds and discuss their implications for dust evolution models and the evolution of dust in the very high redshift universe.

Jour et heure inhabituels

Vendredi 19 Septembre

11h00 Salle Galilée bât 713 C - Orme des Merisiers



Un café sera servi à 10h45

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