



Séminaire organisé par

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



STAR FORMATION IN SPIRAL GALAXIES

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Star formation is the engine that drives galaxy evolution and also provides the birthplace of planetary systems.

In order to fully understand star formation, we need self-consistent models that take the large-scale galaxy as input and generate the structures and kinematics of molecular clouds, follow the local gravitational collapse that forms stars and stellar clusters, and include the feedback effects from young stars. To do this we need to address physical flows from kpc scales down to AU scales, and include the physical properties of gravity, pressure, radiative transfer, magnetic fields, stellar feedback, and the full gravitational potential of the galaxy.

The generation of self-consistent initial conditions for star formation will provide a physical basis to understand how star formation proceeds locally as well as the star formation rates across galaxies. Feedback from star formation including stellar winds, ionisation and supernovae explosions, are an important contributor to the kinematic content of the interstellar medium and can play an important role in halting or triggering star formation.

In this presentation, I will address ongoing efforts to address individual parts of the process from large-scale triggering to the formation of stellar clusters and massive stars as well as the feedback events which can trigger as well as halt star formation.

26 janvier 2012

11h00 Salle Galilée bât 713 C - Orme des Merisiers



Un café sera servi 15 mn avant le séminaire