

ECOLE EVRY SCHATZMAN 2010: STAR FORMATION IN THE LOCAL UNIVERSE**Centre Paul Langevin (Aussois, Savoie, France)****List of courses**

- C1. Bruce Elmegreen (IBM New York): Introductory course: Star formation at all scales, theory and observations
- C2. Frédéric Bournaud (CEA/SAp, Saclay): The formation of stars and structures in interacting galaxies
- C3. François Boulanger (IAS, Orsay) : From the multi-phase interstellar medium to galactic and extragalactic star formation
- C4. Francesco Palla (Arcetri, Florence) : Reconstructing the history of star formation in star-forming regions
- C5a. Sacha Hony (CEA/SAp, Saclay); & C5b. Anaëlle Maury (CEA/SAp, Saclay, and ESO, Chile) : The earliest phases of (high-mass) star formation in our Galaxy and nearby galaxies
- C6. Ralf Klessen (ITA, Heidelberg) : Molecular clouds and the origin of the Initial Mass Function
- C7. André Maeder (Obs. Geneva) : Massive star formation

List of seminars

- S1: Frédéric Bournaud (CEA/SAp, Saclay): *Numerical simulations of star formation at the scale of galaxies and the scale of molecular clouds*

S2: Matthieu Gounelle (MNHN, Paris): *Convergent flows and the origin of the solar system*

S3: Thierry Montmerle (IAP, Paris): *Galactic and extragalactic hot plasmas*

Timetable	MONDAY 27/9	TUESDAY 28/9	WEDNESDAY 29/9
08h45-09h00	T. Montmerle & C. Charbonnel : Welcome		
09h00-11h00	C1. B. Elmegreen : Introductory course: Star formation at all scales, theory and observations (I)	C1. B. Elmegreen : Introductory course: Star formation at all scales, theory and observations (II)	C4. F. Palla : Reconstructing the history of star formation in star-forming regions (I)
09h00-10h00	C1.1. Star formation on galactic scales: empirical laws	C1.4. Triggered star formation	C4.1. Star formation history in SFRs from A(dams) to Z(innecker)
10h00-11h00	C1.2. Star formation in spiral arms	C1.5. Star formation during galaxy formation	C4.2. Protostellar and PMS evolution
11h00-11h30	COFFEE	COFFEE	COFFEE
11h30-12h30	C1.3. Star formation patterns and hierarchies	C2. F. Bournaud : The formation of stars and structures in interacting galaxies (II)	C4.3. Tools to decipher the SFH: deriving and calibrating stellar ages
		C2.4. The role of mergers in the star formation budget of galaxies	
12h30-16h	LUNCH & Free time	LUNCH & Free time	LUNCH & Free time

Timetable	MONDAY 27/9	TUESDAY 28/9	WEDNESDAY 29/9
16h00-19h00	C2. F. Bournaud : The formation of stars and structures in interacting galaxies (I)	C5a. S. Hony : The earliest phases of (high-mass) star formation in our Galaxy and nearby galaxies (I)	C5b. A. Maury : The earliest phases of (high-mass) star formation in our Galaxy and nearby galaxies (II)
16h00-17h00	C2.1. Gas dynamics in interacting galaxies	C5.1. Relations between the ISM and star formation in the Milky Way and in nearby galaxies	C5.2. Mechanisms of gravitational collapse at large scales
17h00-18h00	C2.2. Global star formation in colliding galaxies ("starbursts")	C3. F. Boulanger : From the multi-phase ISM to galactic and extragalactic star formation (I)	C5.3. Small-scale properties of low-mass Class 0 protostars
		C3.1. Interstellar dust: an actor and tracer of ISM structure and star formation	
18h00-19h00	C2.3. Formation of giant star clusters, globular clusters, and formation of larger-scale structures	C3.2. The energetics of the multiphase ISM in relation to star formation	C5.4. Earliest phases of high-mass star formation
19h00-21h00	DINNER	DINNER	SCHOOL DINNER
21h00-21h30	---	<i>S1: F. Bournaud: Numerical simulations of star formation at the scale of galaxies and the scale of molecular clouds</i>	---

Timetable	THURSDAY 30/9	FRIDAY 1/10
09h00-11h00	C4. F. Palla : Reconstructing the history of star formation in star-forming regions (II)	C7. A. Maeder : Massive star formation
09h00-10h00	C4.4. Stellar populations as tracers of star formation: from the solar vicinity to galactic scales	C7.1. Formation of massive stars. Limits on the accretion rates
10h00-11h00	C3. F. Boulanger : From the multi-phase ISM to galactic and extragalactic star formation (II)	C7.2. Accretion models for massive stars
	C3.3. An introduction to modeling tools to interpret infrared observations of gas and dust	
11h00-11h30	COFFEE	COFFEE
11h30-12h30	C6. R. Klessen : Molecular clouds and the origin of the IMF (I)	C7.3. The effects of rotation in star formation
	C6.1. Formation of molecular clouds	
12h30-16h	LUNCH & Free time	12h30-14h00 LUNCH

Timetable	THURSDAY 30/9	FRIDAY 1/10
		14h00-15h00 : <i>Special session</i> Massive stars and high-energy phenomena
16h00-19h00	C6. R. Klessen: Molecular clouds and the origin of the IMF (II)	
16h00-17h00	C6.2. Origin and statistical characteristics of ISM turbulence	14h00-14h30 <i>S2: M. Gounelle: Convergent flows, supernovae, and the origin of the solar system</i>
17h00-18h00	C6.3. Star (cluster) formation in molecular clouds	14h30-15h00 <i>S3: T. Montmerle: Galactic and extragalactic hot plasmas</i>
18h00-19h00	C6.4. Stellar initial mass function	
19h00-25h00	DINNER, MUSIC, & DANCE	15h00-15h30 T. Montmerle & C. Charbonnel: Evaluation of the school and Concluding remarks
		CLOSING OF THE SCHOOL