

30 Invited Review (IR)



(15) Contributed Talk (CT)

Monday, June 26, 2023

08:30 - 10:00	Registration			
10:00 - 10:10	Opening remarks			
Physics and numerics for star formation				
10:10 - 10:40	Shu-ichiro Inutsuka	The basic Astrophysics of star formation		
10:40 - 11:00	Yuri Aikawa	Astrochemistry in low-mass star forming regions		
11:00 - 11:20	Daniele Galli	The challenges of microphysics in the star and disk formation process		
11:20 - 11:35	Jeong-Gyu Kim	A new model for ISM heating/cooling and its applications		
11:35 - 11:50	Gilberto C. Gómez	Ratios of filament widths as tracers of accretion onto filaments		
11:50 - 12:05	Stefan Heigl	Streamer formation during core collapse in turbulent filaments		
12:05 - 12:20	Valentin Le Gouellec	Accretion properties of Class O protostars studied with near-infrared spec-		
		troscopy		
Lunch				
14:00 - 14:15	Hua-Bai Li	Turbulence in Zeeman measurements from molecular clouds		
14:15 - 14:30	Etienne Jaupart	Evolution of the statistics of flows in star-forming clouds: the occurrence of		
		2 power laws in the density PDF and a conserved mass		
	Star and ga	actic disc formation across redshift		
14:30 - 15:00	Avishai Dekel	Origin of super-bright galaxies at cosmic dawn by feedback-free starbursts		
15:00 - 15:20	Volker Bromm	Star formation across redshift		
15:20 - 15:35	Elia Cenci	Starbursts driven by central gas compaction		
15:35 - 15:50	Paul Clark	The initial mass function of primordial stars		
Coffee/Tea & Poster session				
16:30 - 17:00	Raffaella Schneider	Primordial and low-metallicity star formation across cosmic times		
17:00 - 17:15	Kenji Eric Sadanari	Non-ideal magnetohydrodynamic simulations of the first star formation		
17:15 - 17:30	Jérémy Fensch	Star formation in high-redshift clumpy galaxies		
18:30 onwards	Welcome Cocktails			

Tuesday, June 27, 2023

Galactic disc formation and evolution			
09:00 - 09:30	Reinhard Genzel	The formation and evolution of star-forming galaxies	
09:30 - 09:50	Lihwai Lin	The kpc-scale scaling relations of star-forming main sequence and green	
		valley galaxies	
09:50 - 10:05	Carlo Nipoti	Star formation in thick galactic gaseous discs: fully 3D gravitational instabil-	
		ity criteria	
10:05 - 10:20	Kamran Bogue	The impact of magnetic fields on the formation and evolution of molecular	
		clouds	
10:20 - 10:35	Philipp Girichidis	Spectrally resolved cosmic rays in galaxy formation: dynamical impact and	
		observable signatures	
10:35 - 10:50	Eric Emsellem	Scale and time coupling in star-forming galactic discs: the simula-	
		tions/observations synergy	
Coffee/Tea & Poster session			
11:20 - 11:50	Vadim Semenov	Physical drivers of galactic disk formation and evolution	
11:50 - 12:10	Romain Teyssier	Modelling star formation at galactic scale: the role of the magnetic field	
12:10 - 12:25	Iris Breda	Exploring the genesis of spiral galaxies: Classical and pseudo bulges as	
		extremities of a continuous sequence	
	M	olecular cloud evolution	
12:25 - 12:40	Shivan Khullar	Playing with FIRE: Molecular clouds and star formation in a galactic feedback-	
		halting experiment	
		Lunch	
14:15 - 14:45	Stefanie Walch-Gassner	Current views on molecular cloud evolution	
14:45 - 15:05	Volker Ossenkopf-Okada	Molecular cloud formation	
15:05 - 15:20	Elizabeth Watkins	Characterising superbubble populations and their energetics in nearby	
		galaxies using JWST and ALMA	
15:20 - 15:35	João Alves	The Local Solar Neighborhood in the GAIA era	
15:35 - 15:50	Lise Ramambason	Statistical analysis of the molecular clouds properties in resolved and unre-	
		solved galaxies	
	Coffee/Tea & Poster session		
16:20 - 16:50	Adam Leroy	Observations of extragalactic molecular clouds	
16:50 - 17:10	Mordecai-Mark Mac Low	Dynamical collapse of molecular clouds	
17:10 - 17:25	Giuliana Cosentino	Feedback from supernova remnants on molecular clouds: shaping the	
		Interstellar medium	
17:25 - 17:40	Simon Coudé	FIELDMAPS: A Survey of magnetic support in the bones of the Milky Way	
17:40 - 17:55	Jin Koda	Diverse molecular structures and their lifetimes across M83	
19:30 onwards	Astrosymphony by t	he Orchestre des Chaussures Blanches @ La Rotonde INSA Lyon	

Wednesday, June 28, 2023

Isolated star formation: from brown dwarfs to massive stars			
09:00 - 09:30	James Di Francesco	Highlights of recent observational studies into isolated dense cores	
09:30 - 09:50	Rolf Kuiper	Accretion and feedback in the formation of massive stars	
09:50 - 10:05	Basmah Riaz	Spirals and streamers observed towards proto-brown dwarf candidates	
10:05 - 10:20	Henrik Beuther	JOYS: JWST Observations of Young protoStars: First results	
10:20 - 10:35	Tom Megeath	Protostellar accretion and outflow across the mass spectrum	
Coffee/Tea & Poster session			
11:40 - 12:10	Kengo Tomida	Isolated star formation - what (we think) we know and what we need to	
		know	
12:10 - 12:30	Jonathan Tan	Massive star formation through the universe	
12:30 - 12:45	Felix Priestley	Can prestellar cores be modelled as isolated objects?	
12:45 - 13:00	Patrick Koch	Multi-scale picture of magnetic field and gravity in high-mass star-forming	
		region W51	
Guided Tours			
19:00 onwards Conference Dinner			

Thursday, June 29, 2023

Initial Mass Function and Star Formation Rate			
09:30 - 10:00	Mark Krumholz	Towards a comprehensive model of the star-forming ISM	
10:00 - 10:20	Philippe André	The role of molecular filaments in the origin of the initial mass function	
		and star formation efficiency in dense gas	
10:20 - 10:35	Rafael Zavala-Molina	The effect of tidal forces on the Jeans instability criterion in star-forming	
		regions	
10:35 - 10:50	Thomas Nony	Investigating the origin of stellar masses with ALMA-IMF: evolution of the	
		Core Mass Function and burst of star formation	
Coffee/Tea & Poster session			
11:20 - 11:50	Patrick Hennebelle	The physical origin of the stellar initial mass function: a review	
11:50 - 12:10	Cecilia Bacchini	The volumetric star formation law of nearby late-type galaxies	
12:10 - 12:25	Nichol Cunningham	ALMA-IMF: Exploring the kinematics, chemistry and morphology towards	
		15 massive protoclusters	
12:25 - 12:40	Melika Gorgianeh	Structure and kinematics of magnetized filaments in giant molecular clouds	
12:40 - 12:55	David Rebolledo	Multi-phase view of the ISM in the Carina nebula	
		Lunch	
Protostellar disc formation and evolution			
14:30 - 15:00	Anaëlle Maury	What do we know of the youngest disks around solar-type protostars?	
15:00 - 15:20	Aleksandra Kuznetsova	Filaments all the way down: Dynamical consequences for disks at early	
		phases	
15:20 - 15:35	Nagayoshi Ohashi	Early planet formation in embedded disks (eDisk): overview and first results	
15:35 - 15:50	Ugo Lebreuilly	Synthetic populations of protoplanetary disks	
15:50 - 16:05	Erin Cox	Can the protostellar magnetic field morphology probe binary formation?	
Coffee/Tea & Poster session			
16:30 - 16:45	Enrico Ragusa	On the observational appearance of eccentric protostellar discs	
16:45 - 17:15	Yusuke Tsukamoto	Theoretical progress of protostellar disc formation and evolution	
17:15 - 17:35	Łukasz Tychoniec	Protostellar disc masses: estimating reservoir of planet-forming material	
17:35 - 17:50	Francesco Lovascio	Dusty protostellar collapse: Towards concurrent planet and star formation	

Friday, June 30, 2023

Cluster formation		
09:00 - 09:30	Ivan Cabrera-Ziri	Exploring cluster formation: Insights from observational perspectives
09:30 - 09:50	Rachel Friesen	Dense gas flows and feedback in nearby cluster-forming regions
09:50 - 10:05	Jiayi Sun	Hidden gems on a ring: ALMA and JWST reveals infant massive clusters in a
		central starburst galaxy
10:05 - 10:20	Ryunosuke Maeda	Young massive cluster formation by fast HI gas collision
10:20 - 10:35	Alessio Traficante	The SQUALO project: clump-fed accretion mechanism in high-mass star-
		forming objects
10:35 - 10:50	Silvia Martocchia	Cluster formation across cosmic time: a perspective through star clusters'
		multiple stellar populations
Coffee/Tea & Poster session		
11:20 - 11:50	Alison Sills	Star cluster formation – the current theoretical/computational landscape
11:50 - 12:10	Enrique Vazquez-Semadeni	Star cluster formation from hierarchically collapsing molecular clouds
12:10 - 12:25	Nicolas Peretto	Star cluster progenitors are dynamically decoupled from their parent self-
		gravitating molecular clouds
12:25 - 12:40	Ellen Leitinger	The kinematics of multiple stellar populations in 28 Milky Way globular
		clusters
12:40 - 13:00		Final remarks
Lunch		
Poster session and Unconference discussions		