

## RSF13 - Regulation of star formation in molecular gas: from galactic to sub-cloud scales

### Monday 24th June - The structure and organization of the (molecular) ISM

Session chair: Paul Clark

9:00	Organizers	Welcome and Introduction	
9:15	Mark Heyer	The Structure and organization of the (molecular) ISM - The Galactic perspective	review
9:50	Julia Roman-Duval	Properties and distribution of GMCs in the Milky Way	invited
10:15	Alyssa Goodman	A Demographic census of (Molecular) gas in the Milky Way	invited
10:40	Coffee		
11:15	Eric Rosolowsky	Characterizing molecular cloud populations using dendrograms	
11:40	Marco Lombardi & Joao Alves	The structure of molecular clouds from 1000 AU to Orion	
12:05	Discussion on Galactic ISM structure (moderator: Frédérique Motte)		
12:30	Lunch		
Session chair: Bob Benjamin			
14:00	Snezana Stanimirovic	The HI-H2 boundary: lessons from the Perseus molecular cloud	invited
14:25	Blakesley Burkhart	Diagnostics of magnetized turbulence in giant molecular clouds	
14:50	Jean-Philippe Bernard	Polarization results from PLANCK	
15:15	Discussion on magnetic fields and polarization (moderator: Alex Lazarian)		
16:00	Coffee		
16:30	Tony Wong	The Structure and organization of the (Molecular) ISM - The extra-galactic view	review
17:05	Jennifer Donovan Meyer	Exploring the evolution of GMCs with the CANON CO (1-0) survey	
17:30	Annie Hughes	Molecular gas and GMCs in M51 vs the LMC and M33	invited
17:55	Discussion on extra-galactic GMC properties (moderator: Jin Koda)		
18:30	Dinner		

### Tuesday 25th June - (Molecular) gas consumption

Session chair: Sharon Meidt

9:00	Charlie Lada	Schmidt's Conjecture and Star Formation Scaling Relations in GMCs and Galaxies	review
9:35	Amanda Heiderman	Star formation rate and gas relations in Galactic clouds	invited
10:00	Fabian Walter	Star formation laws in nearby galaxies	invited
10:25	Poster presentations		
10:50	Coffee		
11:15	Sarah Ragan	Testing the limits of SF relations in high-mass Galactic clouds	
11:40	Jan Forbrich & Chris Faesi	Bridging Galactic and Extragalactic Star Formation: The Case of NGC300	
12:05	Discussion on SF laws (moderator: Neal Evans)		
12:45	Lunch		
Session chair: Amanda Heiderman			
14:15	Eve Ostriker	(Molecular) gas consumption - Theoretical aspects	review
14:50	Simon Glover	The role of molecular gas in star formation	invited
15:15	Paolo Padoan	The star formation rate and initial mass function in turbulent molecular clouds	invited
15:40	Coffee		
16:15	Jouni Kainulainen	What controls the dense gas mass fraction of molecular clouds?	
16:40	Florent Renaud	Star formation in its context: a subparsec resolution model of the Milky Way	
17:05	Discussion on theoretical aspects of SF (moderator: Ralf Klessen)		
17:30	Tour of Ringberg Castle - Duration: 45-55 min		
18:30	Dinner		

### Wednesday 26th June - Regulation of star formation: enhancement & suppression

Session chair: Thomas Robitaille

9:00	Christoph Federrath	Regulation of star formation - Local processes	review
9:35	Jim Dale	Simulations of ionization and wind feedback	invited
10:00	Laura Lopez	Observations of stellar feed-back on small scales	invited
10:25	Coffee		
10:55	Stella Offner	Modeling feedback from low-mass stars: radiation, outflows & winds	invited
11:20	Discussion on small-scale regulation (moderator: Thomas Henning)		
12:15	Bus leaves for excursion		

Excursion and workshop dinner

21:00 Bus returns to Ringberg Castle

## Thursday 27th June - Regulation of star formation: enhancement & suppression (cont)

Session chair: Andrey Kravtsov

9:00	Clare Dobbs	Regulation of star formation - Global processes	review
9:35	Sarah Kendrew	Assessing the prevalence of triggered star formation from the Milky-Way Project	
10:00	Ian Bonnell	Global simulation of SF from sub-pc to global scales	
10:25	Elizabeth Tasker	Shaping the ISM: the impact of galactic structure in M83	invited
10:50	Coffee		
11:15	Sharon Meidt	The impact of galactic-scale gas motions on cloud stability	invited
11:40	Andreas Schruha	Molecular gas and star formation in the Andromeda galaxy	invited
12:05	Discussion on large-scale regulation and depletion timescale (moderator: Andreas Burkert)		
12:45	Lunch		

## Extreme environments for gas consumption

Session chair: Elisabeth Tasker

14:15	Linda Tacconi	Extreme environments for gas consumption: at high redshift	review
14:50	Frederic Bournaud	SF in extreme environments: starbursts and high-redshift systems	invited
15:15	Brent Groves	Dust luminosity as a tracer of gas mass and gas heating	
15:40	Coffee		
16:15	Santiago Garcia-Burillo	Molecular gas & SF conditions in ULIRGs	invited
16:40	Emanuele Daddi	Molecular gas: from normal galaxies to starbursts	invited
17:05	Discussion on extreme star forming environments near and far (moderator: Eric Emsellem)		
18:30	Dinner		

## Friday 28th June - Extreme environments for gas consumption (cont)

Session chair: Santiago Garcia-Burillo

9:00	Adam Leroy	Extreme environments for gas consumption: low metallicity	review
9:35	Charlotte Christensen	Molecular Hydrogen-dependent star formation in low metallicity environments	invited
10:00	Eric Keto	How can we understand the enhanced star formation rates in starburst galaxies?	
10:25	Karin Sandstrom	Enhanced SF efficiencies in the centers of nearby galaxies	
10:50	Coffee		
11:15	Eric Pellegrini	Understanding feedback in star forming regions	
11:40	Steve Longmore	The centre of our Galaxy: a benchmark for testing universal star formation relations?	invited
12:05	Discussion on SF in galaxy centers and in low metallicity (moderator: Eva Schinnerer)		
12:45	Lunch		
14:15	Diederik Kruijssen	What controls star formation in the central 500 pc of the Galaxy?	
14:40	Elisabeth Mills	The Galactic Center: Star formation in an extreme environment?	
15:05	Break		
15:20	Beer Discussion: How to bridge the gap between large and small scale physics (moderator: Andrey Kravtsov)		
18:30	Dinner		

## Posters

Robert A Benjamin	The Role of Vertical ISM Structure in Molecular Cloud Formation: MHD Models and Observational Tests
Paul Clark	Column density thresholds and the star formation rate
Dario Colombo et al.	The PdBI Arcsecond Whirlpool Survey (PAWS) II. Resolved Properties of Giant Molecular Clouds in M51 and Local Group Galaxies
Christopher Faesi, Jan Forbrich, Charles Lada et al.	Measuring Star Formation at GMC Scales in NGC 300
Thomas Henning	Long filaments in the Milky Way
Katharine Johnston	Does the Galactic centre cloud G0.253+0.016 violate star formation laws?
Adam Leroy	ALMA's First Look at Our Cosmic Origins
Frédérique Motte	The "present-day SFR" concept and its estimates in mini-starburst ridges
Eva Schinnerer et al.	The PdBI Arcsecond Whirlpool Survey (PAWS) I. Molecular Gas, Dust and Star Formation
Wolfram Schmidt	Thermal and turbulent feedback in isolated disk galaxy simulations.
Rahul Shetty	The sub-linear and non-universal Kennicutt-Schmidt Relationship