

MONDAY

09:00	Andreas Burkert (USM/LMU)	Welcome
► Introduction to ISM properties: from small to large scales		
	Chair: Henrik Beuther	
09:15	Ralf Klessen (ZAH/ITA, University of Heidelberg)	Review
	Introduction to ISM properties: from small to large scales	
► The multi-phase ISM		
	Chair: Henrik Beuther	
09:55	Stefanie Walch (MPA, Garching)	Review
	The multi-phase ISM	
10:35	Coffee and Tea Break / Poster Viewing	
11:05	Kazunari Iwasaki (Nagoya University)	Contributed
	Turbulent structure in bistable interstellar medium: a self-sustaining mechanism	
11:20	Evangelia Ntormousi (Sap/CEA Saclay)	Contributed
	The thickness distribution of interstellar filaments	
11:35	Peter Scicluna (ESO)	Contributed
	Anomalous extinction: The degeneracy between dust composition and geometry	
11:50	Hans Zinnecker (Deutsches SOFIA Institut)	Contributed
	Latest GREAT results from SOFIA	
► Molecular cloud properties		
	Chair: Cornelia Jäger	
12:05	Joao Alves (University of Vienna)	Review
	The structure of molecular clouds from 1000 AU to Orion	
12:45	Lunch Break / Poster Viewing	
14:15	Nicola Schneider (LAB Bordeaux)	Contributed
	The Herschel view of molecular cloud structure and star formation	
14:30	Doris Arzoumanian (IAS Orsay)	Contributed
	Properties of interstellar filaments observed with Herschel and 3D magnetic field structure derived from the polarization parameters observed with Planck	
14:45	Gesa Bertrang (ITAP, University of Kiel)	Contributed
	Magnetic Fields in Bok globules	
15:00	Jouni Kainulainen (MPIA, Heidelberg)	Contributed
	Effect of turbulence on the density statistics of molecular clouds: an observational view	
15:15	Rowan Smith (ZAH/ITA, University of Heidelberg)	Contributed
	Filamentary Structures in the ISM	
15:30	Coffee and Tea Break / Poster Viewing	
► Turbulence in the ISM		
	Chair: Stefanie Walch	
16:00	Fabian Heitsch (University of North Carolina Chapel Hill)	Review
	Turbulence in the ISM	
16:30	Patrick Hennebelle (Sap/CEA Saclay)	Review
	Molecular cloud formation in converging flows	
17:00	Paul Clark (ZAH/ITA, University of Heidelberg)	Contributed
	On the characteristic mass of stars in stellar clusters	
17:15	Jo Barnes (University of St Andrews)	Contributed
	Photoionization of the diffuse ionised gas in an MHD supernova-driven turbulent Interstellar Medium	
17:30	Edith Falgarone (LERMA/LRA ENS)	Contributed
	The molecular richness of diffuse ISM: a tracer of turbulent dissipation	
17:45	Welcome Reception	

TUESDAY

► Collapse of molecular clouds and the IMF		Chair: Simon Glover
9:00	Matthew Bate (University of Exeter)	Review
	Collapse of molecular clouds and the IMF	
9:40	Paula Stella Teixeira (University of Vienna)	Contributed
	Tracing the fragmentation of OMC1-north filament with the Submillimeter Array	
9:55	Enrique Vazquez-Semadeni (CRyA, UNAM)	Contributed
	Filament formation and star formation regulation in collapsing molecular clouds	
10:10	Katharine Johnston (MPIA, Heidelberg)	Contributed
	The structure and star-forming fate of the Galactic centre cloud G0.253+0.016	
10:25	Coffee and Tea Break / Poster Viewing	
► Laboratory Astrophysics		Chair: Simon Glover
10:55	Cornelia Jäger (Universität Jena)	Review
	Laboratory Studies of Dust Formation and Processing	
11:35	Holger Kreckel (MPIK, Heidelberg)	Contributed
	Combining experimental techniques for comprehensive astrophysical case studies	
11:50	Andreas Wolf (MPIK, Heidelberg)	Contributed
	Laboratory studies on electron collisions of atomic and molecular ions	
► Chemical processes in the ISM		Chair: Dominik Schleicher
12:05	Simon Glover (ZAH/ITA, University of Heidelberg)	Review
	Chemical processes in the ISM: Gas and molecules	
12:35	Lunch Break / Poster Viewing	
14:05	Thomas Henning (MPIA, Heidelberg)	Review
	Chemical processes in the ISM: Dust	
14:35	Marta Alves (Institut d'Astrophysique Spatiale (IAS)) ...	Contributed
	Galactic dust as seen by Planck	
14:50	Henrik Beuther (MPIA, Heidelberg)	Contributed
	Formation signatures and carbon budget of molecular clouds	
15:05	Bastian Gundlach (TU Braunschweig)	Contributed
	Experimental investigation of the collision properties of micrometer-sized water ice particles	
15:20	Ralf Siebenmorgen (ESO)	Contributed
	Dust in the diffuse interstellar medium: Extinction, emission, linear and circular polarization	
15:35	Coffee and Tea Break / Poster Viewing	
16:05	Svitlana Zhukovska (MPIA, Heidelberg)	Contributed
	Dust-to-gas ratio as a clue to the galactic evolution	

TUESDAY

► Dependence of star formation on ISM properties		
	Chair: Svitlana Zhukovska	
16:20	Adam Leroy (NRAO, Charlottesville)	Review
	Dependence of star formation on ISM properties	
17:00	Diederik Kruijsen (MPA, Garching)	Contributed
	An uncertainty principle for star formation - why galactic scaling relations break down below a certain spatial scale	
17:15	Sarah Ragan (MPIA, Heidelberg)	Contributed
	Herschel and APEX study of the initial condition of high-mass star formation	
17:30	Javier A. Rodon (ESO)	Contributed
	Deuteration and fragmentation in massive star-forming regions	
17:45	Amelia Stutz (MPIA, Heidelberg)	Contributed
	Connecting diverse molecular cloud environments with nascent protostars in Orion	

WEDNESDAY

► Stellar feedback in the ISM		
	Chair: Enrique Vazquez-Semadeni	
9:00	Mordecai-Mark Mac Low (AMNH, New York)	Review
	Stellar feedback in the ISM	
9:40	Joanne Dawson (CSIRO Astronomy and Space Science)	Contributed
	Molecular cloud formation in stellar feedback flows: Observing, demonstrating, quantifying	
9:55	James Dale (Excellence Cluster Universe)	Contributed
	Disruption of GMCs by photoionization and stellar winds - setting the stage for supernovae.	
10:10	Matthias Gritschneider (Univ. California, Santa Cruz)	Contributed
	The evolution of molecular clouds under the influence of ionizing radiation	
10:25	Andrea Gatto (MPA, Garching)	Contributed
	Feedback-driven turbulence in the multi-phase ISM	
10:40	Coffee and Tea Break / Poster Viewing	
11:10	Thomas Peters (Universität Zürich)	Contributed
	Understanding ultracompact H II regions	
11:25	Eric Keto (Harvard-Smithsonian Center for Astrophysics)	Contributed
	An analytic model for the dynamics of the ionized outflows of massive protostars	
11:40	Thomas Preibisch (USM/LMU)	Contributed
	Deciphering the violent interaction between very massive stars and their natal clouds in the Carina Nebula Complex	
11:55	Dominique Meyer (AlfA, Bonn)	Contributed
	Models for the circumstellar medium of massive runaway stars	
12:10	Jonathan Mackey (AlfA, Bonn)	Contributed
	Dynamics of H II regions around exiled O stars	
12:25	Lunch Break / Poster Viewing	
14:00	Guided tour through Munich including visit to Nymphenburg Castle	
18:00	Conference Dinner	

THURSDAY

- The magnetised ISM

Chair: Rowan Smith
- 09:00

Ellen Gould Zweibel (University of Wisconsin) Review

The magnetised ISM: Theory
- 09:30

Richard Crutcher (University of Illinois) Review

The magnetized ISM: Observations
- 10:00

Francois Boulanger (Institut d'Astrophysique Spatiale) Contributed

Mapping the structure of the Galactic magnetic field with Planck
- 10:15

Alex Hill (CSIRO Astronomy & Space Science) Contributed

Magnetic fields in high velocity clouds
- 10:30

Coffee and Tea Break / Poster Viewing
- 11:00

Stefan Reifl (Univ. Kiel) Contributed

Multi-wavelength polarization measurements tracing the ISM magnetic field
- 11:15

Dominik Schleicher (Institut für Astrophysik Göttingen) Contributed

The far-infrared - radio correlation:
Star formation and magnetic field amplification in the ISM
- ISM on Galactic Scales

Chair: Rowan Smith
- 11:30

Alberto Bolatto (University of Maryland) Review

ISM on galactic scales: Observations
- 12:00

Andreas Burkert (USM/LMU) Review

ISM on galactic scales: Theory
- 12:30

Lunch Break / Poster Viewing
- ISM on Galactic Scales

Chair: Mordecai-Mark Mac Low
- 14:00

Brent Groves (MPIA, Heidelberg) Contributed

Dust luminosity as a tracer of gas mass and gas heating
- 14:15

Manuel Behrendt (MPE, Garching) Contributed

Structure formation and evolution in gas-rich disk systems
- 14:30

Maria Kapala (MPIA, Heidelberg) Contributed

The survey of lines in M31 (SLIM): Investigating the origins of [CII] emission
- 14:45

Jin Koda (Stony Brook University) Contributed

Evolution of molecular gas in spiral galaxies
- 15:00

Martin Krause (MPE, Garching) Contributed

Superbubbles as a physical process in the ISM
- 15:15

Ute Lisenfeld (Universidad Granada) Contributed

Star formation and molecular gas outside galaxies
- 15:30

Coffee and Tea Break / Poster Viewing
- 16:00

Andreas Schruba (MPE, Garching) Contributed

The resolved ISM of our nearest spiral galaxy
- 16:15

Rahul Shetty (ZAH/ITA, University of Heidelberg) Contributed

The sub-linear and non-universal Kennicutt-Schmidt relationship
- 16:30

Javier Zaragoza-Cardiel (IAC) Contributed

Two regimes of star formation

THURSDAY

- The ISM in the extreme environment of galactic centers

Chair: Avishai Dekel
- 16:45

Steven Longmore (Liverpool John Moores University) Review

The ISM in the extreme environment of galactic centers
- 17:25

Timothy Davis (ESO) Contributed

The ISM in the extreme environment of early-type galaxies
- 17:40

Vladimir Dogiel (P.N.Lebedev Institute of Physics) Contributed

Physical processes of gas ionization in the Galactic Center
and the origin of 6.4 keV and absorption H_3^+ Lines from there

FRIDAY

- Cosmic rays and their impact on the ISM

Chair: Ellen Gould Zweibel
- 09:00

Tsuyoshi Inoue (Aoyama Gakuin University) Review

Cosmic rays and their impact on the ISM
- 09:40

Sabrina Casanova (MPIK, Heidelberg) Contributed

Cosmic ray propagation in molecular clouds
- 09:55

Philipp Girichidis (MPA, Garching) Contributed

Cosmic ray driven Galactic outflows and the evolution of cosmic ray spectra
- 10:10

Miwa Goto (USM/LMU) Contributed

The cosmic-ray ionization rate in the Central parsec of the Galaxy
- 10:25

Ruizhi Yang (Purple Mountain Observatory) Contributed

Probing cosmic rays in nearby giant molecular clouds with the Fermi Large Area Telescope
- 10:40

Coffee and Tea Break / Poster Viewing
- The ISM at high redshift

Chair: Ellen Gould Zweibel
- 11:10

Linda Tacconi (MPE, Garching) Review

The ISM at high redshift: Observations
- 11:40

Avishai Dekel (The Hebrew University) Review

The ISM at high redshift: Theory
- 12:10

Muhammad Latif (Institute for Astrophysics, Göttingen) Contributed

Turbulence and the formation of supermassive black holes at high redshift
- 12:25

Thorsten Naab (MPA, Garching) Contributed

Outflows and the multi-phase turbulent structure of the ISM in high-redshift galaxies
- 12:40

Lunch Break and End of Conference

Emergency phone numbers

Ambulances, Fire & Rescue Service, Police 112

Doctor on duty 116 117

LOC

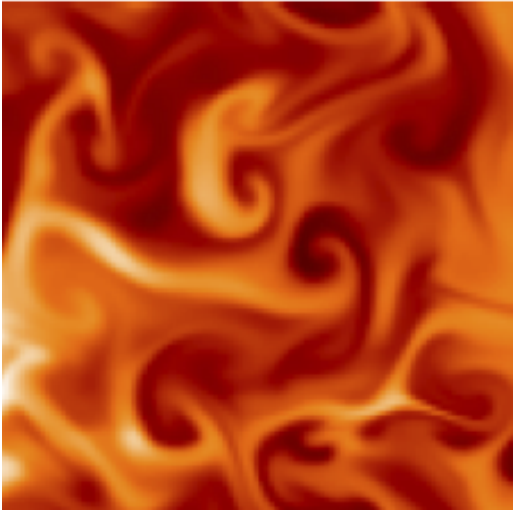
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Physical Processes in the ISM

October 21-25, 2013
MPE, Garching

SOC

Felix Aharonian
Andreas Burkert
Bruce Elmegreen
Thomas Henning
Shu-ichiro Inutsuka
Cornelia Jäger
Ralf Klessen

Mark Krumholz
Mordecai-Mark Mac Low
Christopher McKee
Karl Menten
Eve Ostriker
Marc Schartmann
Sebastian Wolf
Ellen Gould Zweibel

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