

THURSDAY, FEBRUARY 16th

The chemistry of the ISM

- 08:45 **Ewine van Dishoeck - Review talk**
Chemistry in the ISM: overview and recent developments
- 09:15 **Raana Nordon**
C⁺/H₂ - 'CO-dark' molecular gas in star forming clouds and galaxies
- 09:30 **Valeska Valdivia**
Consequences of out-of-equilibrium H₂ on the chemistry of diffuse molecular clouds
- 09:45 **Livia Vallini**
Molecular cloud photoevaporation and FIR line emission
- 10:00 **Stephan Schlemmer - Invited talk**
Molecular astrophysics in the interstellar medium
- 10:30 coffee break
- 11:00 **Antoine GUSDORF - Invited talk**
Interstellar shocks chemistry
- 11:20 **Daniel Seifried**
Modelling the chemistry and dynamics of molecular clouds: What is needed?
- 11:35 **Claire Murray**
Decoding interstellar clouds with 21-SPONGE and synthetic observations
- 11:50 **Eric Pellegrini**
OPIATE for the masses: Enlightening Simulations
- 12:05 **Discussion - Ewine van Dishoeck**
- 12:30 lunch break

The Physics of Dust

- 14:00 **Cornelia Jäger - Review talk**
Laboratory experiments on the formation and processing of cosmic dust
- 14:30 **Wanggi Lim**
Dust and gas as the tracers of star cluster formation
- 14:45 **Raymond Oonk**
The cold neutral medium through low-frequency radio recombination lines
- 15:00 **Sara Rezaeikhoshbakht**
3D distribution of the interstellar dust in the Galaxy with a non-parametric model
- 15:15 **Harald Mutschke**
Laboratory measurements of the far-infrared to millimeter dust opacity at low temperatures
- 15:30 coffee break
- 16:00 **Svitlana Zhukovska - Invited talk**
Unveiling dust properties across galactic environments with dust evolution models
- 16:20 **Andrea Bracco**
Changes of dust properties along an evolutionary chain of prestellar cores and protostars in Taurus
- 16:35 **Isabelle Grenier**
The γ -ray view on dust evolution in nearby clouds
- 16:50 **Yuefang Wu**
Evolution status of Planck Cold Dust Clumps
- 17:05 **Phil Cigan**
High-resolution observations of dust in SN 1987A
- 17:20 **Discussion - Cornelia Jäger**

FRIDAY, FEBRUARY 17th

The ISM in Extreme Environments

- 08:45 **Jürgen Ott - Review talk**
The ISM in extreme environments
- 09:15 **Katie Jameson**
Molecular gas and star formation at low metallicity in the Magellanic Cloud
- 09:30 **Jens Kauffmann**
Unveiling the mysteries of galactic center star formation at high angular resolution with ALMA and SMA
- 09:45 **Mattia Sormani**
Understanding the dynamics of the ISM in the inner Milky Way
- 10:00 **Alvaro Sánchez-Monge**
An ALMA view of SgrB2: continuum characterisation and spectral line survey
- 10:15 **Sharanya Sur**
Outflows from high surface density galaxies
- 10:30 coffee break
- 11:00 **Diederik Kruijssen - Invited talk**
The evolutionary lifecycle of molecular clouds and star-forming regions across cosmic time
- 11:20 **Anna Schauer**
Lyman-Werner escape fractions from the first galaxies
- 11:35 **Thomas Bisbas**
Observing molecular gas in extreme ISM environments
- 11:50 **Thiem Hoang**
New origins of anomalous microwave emission: rotational emission from interstellar nanosilicates and iron nano particles
- 12:05 **Discussion - Steven Longmore**
- 12:30 lunch break

Connecting the ISM and its galactic environment

- 14:00 **Adam Leroy - Review talk**
The physical state of the cold gas in nearby galaxies and its relation to star formation
- 14:30 **Frank Bigiel**
Overview and first results of the EMPIRE nearby galaxy dense gas survey
- 14:45 **Diane Cormier**
Physical conditions and structure of the ISM in nearby low-metallicity star-forming galaxies
- 15:00 **Marc-Antoine Miville-Deschênes**
Physical properties of molecular clouds for the entire Milky Way disk
- 15:15 **Bastian Körtgen**
The evolution of magnetised, self-gravitating isolated disc galaxies
- 15:30 coffee break
- 16:00 **Oscar Agertz - Invited talk**
The impact of ISM physics on galaxy formation
- 16:20 **Alexander Pettitt**
The impact of different spiral arm structures on star formation and ISM morphology
- 16:35 **Yuan Wang**
The ionized gas in the Milky Way as seen with THOR
- 16:50 **Daniel Callanan**
Studying star formation in the centre of nearby spiral galaxies
- 17:05 **Jürgen Kerp**
Cosmic molecular rain: evidence for inflow of gas sustaining the galactic star-formation rate
- 17:20 **Concluding Remarks**



THE PHYSICS OF THE ISM

6 years of ISM-SPP 1573: What have we learned?

February 13th-17th, 2017

University of Cologne,
Germany



17:00 Sunday, February 12th - Reception

MONDAY, FEBRUARY 13th

08:30 Welcome - Andreas Burkert, Ansgar Büschges, Stefan Krückeberg

Observations of Multi-Scale Structures in the ISM

09:00 **Philippe André - Review talk**

Observations of multi-scale structure in the ISM

09:30 **Johanna Malinen**

Matching dust emission structures and magnetic field in high-latitude cloud L1642: comparing Herschel and Planck maps

09:45 **Peter Kalberla**

HI: from macroscopic filamentary structures down to smaller scales using direction-dependent power spectra

10:00 **Gina Panopoulou**

Molecular cloud filaments: no evidence for a "characteristic" width

10:15 **Roland Diehl**

Observing stellar feedback in the Scorpius-Centaurus region

10:30 coffee break

11:00 **Alvaro Hacar - Invited talk**

Filaments and clusters as complex fiber networks

11:20 **Jouni Kainulainen**

How do high-mass filaments fragment? Towards an evolutionary sequence with ALMA

11:35 **Timea Csengeri**

ATLASGAL selected infrared quiet massive clumps: ALMA reveals potential precursors of the high mass stars

11:50 **Jaime Pineda**

The Green Bank Ammonia Survey (GAS): First results of NH₃ mapping the Gould Belt

12:05 **Discussion - João Alves**

12:30 lunch break

Turbulence and Dynamics of the ISM and their influence on Structure Formation

14:00 **Mordecai MacLow - Review talk**

Formation and evolution of giant molecular clouds: gravity or turbulence?

14:30 **Emeric Bron**

Dissecting the structure of the Orion B molecular cloud

14:45 **Philipp Girichidis**

Dynamical impact of cosmic rays on the structure of the ISM

15:00 **Alex Hill**

Why is there a three-phase ISM?

15:15 **Javier Bellesteros-Paredes**

Gravity or turbulence? On the dynamics of molecular clouds

15:30 coffee break

16:00 **Blakesley Burkart - Invited talk**

New diagnostics of MHD turbulence in the multiphase interstellar medium

16:20 **Stefan Heigl**

Accretion driven turbulence in filaments

16:35 **Roxana-Adela Chira**

Fragmenting filaments

16:50 **Kenny Wood**

Photoionisation simulations of a SILICCY interstellar medium supported by cosmic rays

17:05 poster session

17:35 **Discussion - Fabian Heitsch**

TUESDAY, FEBRUARY 14th

Structure Formation and scaling relations in the ISM

08:30 **Bruce Elmegreen - Review talk**

Structure formation and scaling relations in the ISM

09:00 **Henrik Beuther**

Atomic and molecular gas during cloud formation investigated with THOR

09:15 **Mika Juvela**

Studies on Planck galactic cold clumps

09:30 **Julia Roman Duval**

Distribution and mass of diffuse and dense CO gas in the Milky Way

09:45 **Todor Veltchev**

Clump populations in Rosette associated from CO and Herschel maps

10:00 **Sarah Ragan**

Linking Galactic structure to star formation in the Milky Way

10:15 **Bram Ochsendorf**

The modes of massive star formation and the structure of the ISM

10:30 coffee break

11:00 **Daniela Calzetti - Invited talk**

The scaling relations of star formation - insights from the UV

11:20 **Sharon Meidt**

Where are molecular clouds self-gravitating?

11:35 **Naomi McClure-Griffiths**

Gas temperature demography in the Magellanic Clouds

11:50 **Enrique Vázquez-Semadeni**

Molecular cloud assembly: Evolution of the CO-dark component and turbulent quenching of turbulent generation

12:05 **Discussion - Bruce Elmegreen**

12:30 lunch break

The Magnetized ISM and its Influence on Structure Formation

14:00 **Richard Crutcher - Review talk**

The magnetized ISM and its influence on structure formation

14:30 **Thushara Pillai**

POLSTAR survey: Magnetic fields in pristine to cluster forming filaments

14:45 **Juan Soler**

The role of the magnetic field in the formation of density structures in molecular clouds as revealed by dust polarized thermal emission

15:00 **Juan Ibáñez-Mejía**

Collapsing super-Alfvénic molecular clouds in a turbulent ISM

15:15 **Rainer Beck**

Magnetic fields in star-forming galaxies

15:30 coffee break

16:00 **Alexandre Lazarian - Invited talk**

What we have learned recently about effect of MHD turbulence

16:20 **Stefan Reissl**

Ambiguities in tracing magnetic fields with aligned dust grains

16:35 **Gemma Busquet**

Magnetically dominated parallel interstellar filaments at the infrared dark cloud G14.225-0.506

16:50 **Dinesh Kandel**

Statistical methods to study turbulence and magnetic fields in astrophysical environments

17:05 poster session

17:35 **Discussion - Richard Crutcher**

WEDNESDAY, FEBRUARY 15th

Feedback and Phase Transitions in the ISM

08:45 **Mark Krumholz - Review talk**

Feedback and phase transitions in the ISM

09:15 **Stefanie Walch**

The SILCC project: **S**timulating the **L**ife-**C**ycle of molecular **C**louds

09:30 **Rolf Kuiper**

Protostellar outflows and radiation feedback from massive protostars

09:45 **Jonathan Mackey**

Simulating HII regions and stellar wind bubbles

10:00 **Sebastian Haid**

Stellar feedback processes in molecular clouds

10:15 **Sam Geen**

Shaping local star formation laws with ionising feedback

10:30 coffee break

11:00 **Eve Ostriker - Review talk**

The three-phase star forming interstellar medium

11:30 **Richard Klein**

Multi-physics, multi-scale simulations of star formation in filamentary infrared dark molecular clouds: From turbulent large scale magnetized clouds to stellar clusters

11:45 **Jane Arthur**

Turbulence in HII regions

12:00 **Discussion - Mark Krumholz**

12:30 lunch break

14:00 **Excursion**

19:00 **Conference Dinner**

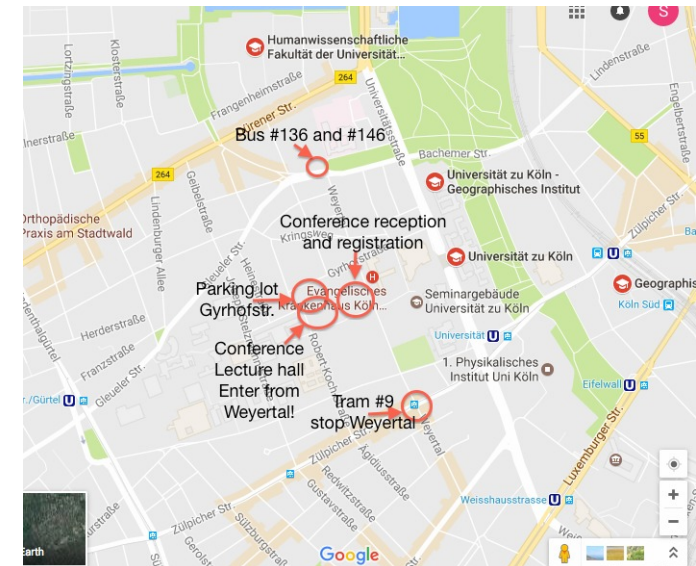


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