

Program

van de Hulst Centennial Symposium

The Interstellar Medium of Galaxies: Status and Future Perspectives

Monday November 5

08:30 - 09:00 Registration

09:00 - 09:05 Welcome

Session 1: Components of the ISM in the Milky Way — observations, part 1

09:05 - 09:50 Carl Heiles, An Observers perspective on ISM components in the Milky Way (Keynote review)

09:50 - 10:20 Mark Heyer, The distribution and properties of molecular gas (Invited review)

10:20 - 10:50 Snezana Stanimirovic, HI in the Milky Way (Invited review)

10:50 - 11:20 *Coffee Break*

11:20 - 11:50 Isabelle Grenier, CO dark gas (Invited review)

11:50 - 12:10 Pedro Salas, Surveying the Cold Neutral Medium with carbon radio recombination lines (contributed talk)

12:10 - 12:30 Kendall Hall, "CO-Dark" Gas in the Perseus Giant Molecular Cloud (contributed talk)

12:30 - 13:30 *Lunch*

Session 2: Interstellar Processes

13:30 - 14:15 Mike Shull, Theoretical Puzzles in Interstellar Processes (Keynote review)

14:15 - 14:45 Edith Falgarone, Turbulence in the ISM, (Invited review)

14:45 - 15:15 Maryvonne Gerin, Observations and theory of chemistry in the diffuse and dense ISM, (Invited review)

15:15 - 15:40 *Coffee Break*

15:40 - 16:10 Serena Viti, Interstellar shocks, (Invited review)

16:10 - 16:40 Gary Ferland, Radiative heating and cooling of interstellar gas, (Invited review)

16:40 - 17:00 Sarah Jeffreson, A general theory for the lifetimes of giant molecular clouds under the influence of galactic dynamics (contributed talk)

17:00 - 19:00 **Poster session 1**

combined with welcome drinks, Poster Session 1, tour of the museum

Tuesday November 6

08:30 Museum open

Session 3: Components of the ISM in the Milky Way — observations, part 2

- 09:00 - 09:30 Bruce Elmegreen, Relationship among ISM components (Invited review)
- 09:30 - 10:00 Matt Haffner, The distribution and properties of photo-ionized gas (Invited review)
- 10:00 - 10:30 Robin Shelton, Collisionally ionized gas (Invited review)
- 10:30 - 11:00 *Coffee Break*
- 11:00 - 11:30 Bruce Draine, The characteristics of interstellar dust (Invited review)
- 11:30 - 12:00 Frederic Galliano, Dust Scaling Relations and Dust Evolution from the Nearby Universe Point of View
- 12:00 - 12:30 Christoph Pfrommer, Cosmic rays and the ISM (Invited review)
- 12:30 - 13:30 *Lunch*
- 13:30 - 13:50 JinLin Han, The most updated results of the magnetic field structure of the Milky Way (contributed talk)

Session 4: Stellar feedback on the ISM, part 1

- 13:50 - 14:35 Laura Lopez, Stellar feedback (Keynote review)
- 14:35 - 15:05 Mordecai-Mark Mac Low, Protostellar feedback (Invited review)
- 15:05 - 15:30 *Coffee Break*
- 15:30 - 16:00 Chris Matzner, Interstellar feedback and HII regions (Invited review)
- 16:00 - 16:20 Melanie Chevance, A systematic characterisation of the evolutionary cycling between molecular clouds, star formation, and feedback in nearby galaxies (contributed talk)
- 16:20 - 16:40 Ralf Klessen, A new semi-analytic feedback model for star clusters and its application to ISM dynamics (contributed talk)
- 16:40 - 17:00 Min-Young Lee, Radiative and mechanical feedback into the warm molecular gas in the local starburst 30 Doradus (contributed talk)

Wednesday November 7, 2018

08:30 Museum open

Session 5: Theory of the ISM

09:00 - 09:45 Eve Ostriker, A theoretician's view of the ISM of galaxies (Keynote review)

09:45 - 10:15 Mark Wolfire, Thermodynamic and pressure equilibrium in the ISM (Invited review)

10:15 - 10:45 Phil Hopkins, Galaxy simulations (Invited review)

10:45 - 11:15 Coffee Break

11:15 - 11:45 Charlie Lada, Evolution of molecular clouds (Invited review)

11:45 - 12:05 Diederik Kruijssen, The physics encoded by the star formation relation (contributed talk)

12:05 - 12:25 Jonathan Slavin, Dust Evolution in the Multiphase Interstellar Medium (contributed talk)

12:30 - 13:30 *Lunch*

Van de Hulst: Legacy Celebration

A special celebration of van de Hulst contributions to science. This afternoon program requires separate registration and will run from 13:30 to 18:00.

Thursday November 8, 2018

08:30 Museum open

Session 6: Stellar feedback on the ISM, part 2

09:00 - 09:30 Javier Goicoechea, Radiative feedback & PDRs (Invited review)

09:30 - 10:00 Stefi Walch, From stellar winds to explosions: how massive stars shape their environment through mechanical energy input (Invited review)

Session 7: The ISM in other galaxies, part 1

10:00 - 10:45 Adam Leroy, The ISM of galaxies (Keynote review)

10:45 - 11:15 *Coffee Break*

11:15 - 11:45 Eva Schinnerer, Molecular gas and the ISM of galaxies (Invited review)

11:45 - 12:15 Joel Bregman, Hot galaxy haloes (Invited review)

12:15 - 12:35 Elias Brinks The ISM in Nearby Galaxies: a radio continuum perspective (contributed talk)

12:35 - 13:30 *Lunch*

13:30 - 15:00 **Poster session 2** (coffee)

Session 8: Future observing opportunities

15:00 - 15:45 Margaret Meixner, The future is bright (Keynote review)

15:45 - 16:15 Luigi Spinoglio, Infrared: from SOFIA and JWST to SPICA and beyond (Invited review)

16:15 - 16:45 Alberto Bolatto, Radio and submillimeter: from the VLA, ALMA and LOFAR to SKA (Invited review)

Evening program: Conference Dinner

18.30 – 19.00 Drinks in Grand Café de Burcht

19.00 – 21.00 Diner in the Garden Room of Grand Café de Burcht

Grand Café de Burcht

Burgsteeg 14 2312 JS LEIDEN

(t) 071-2073272

<https://grandcafedeburcht.nl/>

location on google maps: <https://goo.gl/maps/MnCsafL2aok>

Partners are welcome at the conference dinner. However, if you want to bring your partner, please contact the LOC at vdhulstcentennial@strw.leidenuniv.nl

Friday November 9, 2018

08:30 Museum open

Session 9: ISM over cosmic times

09:00 - 09:45 Mark Krumholz, The ISM over cosmic times

09:45 - 10:15 Raffaella Schneider, Dust in high redshift galaxies (Invited review)

10:15 - 10:35 Trystyn Berg, Quasars shining light on dust depletion --- The detailed chemistry of damped Lyman alpha systems

10:35 - 11:00 *Coffee Break*

11:00 - 11:20 Sui Ann Mao, Gravitational Lensing as a Powerful Probe of the Redshift Evolution of Galactic Magnetic Fields

11:20 - 11:40 Dimitra Rigopoulou, The ISM properties of Ultraluminous Infrared Galaxies over cosmic time

11:40 - 12:00 Paola Andreani, Extreme excitation in high redshift galaxies: APEX and ALMA observations of the Atomic Carbon (CI) and Carbon monoxide (CO) emission lines (contributed talk)

12:00 - 12:20 Livia Vallini, Probing the ISM properties of first galaxies through [CII] 2nd CO line emission (contributed talk)

12:30 - 13:30 *Lunch*

Session 10: The ISM in other galaxies, part 2

13:30 - 14:00 Marijke Haverkorn, Interstellar magnetic fields (Invited review)

14:00 - 14:30 Karin Sandstrom, Dwarf Galaxies (Invited review)

14:30 - 15:00 Maud Galametz, metallicity and dust-to-gas ratios in galaxies (Invited review)

15:00 - 15:30 *Coffee Break*

15:30 - 15:50 Diane Cormier, Revealing the ISM properties of star-forming dwarf galaxies (contributed talk)

15:50 - 16:10 Miroslava Dessauges-Zavadsky, Molecular cloud properties at $z=1$ (contributed talk)

16:10 - 16:30 Philipp Richter, The circumgalactic gaseous environment of the Milky Way and other low-redshift galaxies (contributed talk)

16:30 Closing remarks

van de Hulst Legacy Celebration program

Wednesday 7 November 2018 van de Hulst: Legacy Celebration

13:30 Inloop/Welcome by Huub Röttgering
13:45 Tim de Zeeuw
14:15 Johan Bleeker
14:45 Raffaella Morganti
15:15 Coffee break
15:45 Rogier Windhorst
16:15 Frans Snik
17:00 Borrel
18:00 End