The Icy Universe Revealed by JWST

Organizers: Jennifer Bergner and Sergio Ioppolo
March 22-25, 2026

Sunday AM

Georgia World Congress Center | B207
Highly Processed Environments
S. Ioppolo, *Organizer* | J. Bergner, *Organizer, Presiding*

8:00 AM. Introductory Remarks.

8:05 AM. PDRs4All: JWST's view of the orion bar. **E. Peeters**

8:40 AM. Interstellar catalysis and erosion reaction pathways to formation of the molecular building blocks of life. **L. Hornekaer**

9:15 AM. New studies of ice astrochemistry involving ions and electrons. **D.E. Woon**

9:50 AM. Break.

10:10 AM. Searching for evidence of carbon grain formation and destruction in protoplanetary disks. **E. Bergin**

10:45 AM. Externally irradiated disk chemistry: A JWST MIRI case study of proplyds near B-star 42 Ori. **Q. Zhou**, A. Booth, K. Oberg

11:20 AM. Formation and stability of the building blocks of life on space-relevant ice grain analogs. **S. Ioppolo**

11:40 AM. Laboratory investigation of complex organic molecules under interstellar conditions: Implications for jwst observations. **A.M. Wilson**, S. Ioppolo, A. Cassidy

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Sunday PM

Georgia World Congress Center | B209
Molecular Clouds
J. Bergner, S. Ioppolo, *Organizers* | D. E. Woon, *Presiding*

2:00 PM. Laboratory studies to investigate ice chemistry during star and planet formation. **S.L. Widicus Weaver**, C.E. Walker, C. Sarver, R. Neisser, A. Lopez Holguin

2:35 PM. Astrochemical ice models in the JWST era. **C.N. Shingledecker**

3:10 PM. Sulfur is not missing; It just takes many forms. **R.C. Fortenberry**, A. Herath, M. McAnally, A. Turner, J. Wang, J. Marks, J. Garcia-Alvarez, S. Gozem, R. Kaiser

3:45 PM. Break.

4:15 PM. Ice infrared spectroscopy, band strengths, and optical constants: Laboratory measurements critical to understanding observed spectra. **P.A. Gerakines**, R.L. Hudson

4:50 PM. Reactive atom chemistry with interstellar ice analogs. **M. Brann**, R.S. Thompson, S.J. Sibener, M. Rajappan, K. Oberg

5:25 PM. Binding energy: A key parameter for astrophysical ice chemistry. **M. Sil**, A. Roy, P. Gorai, N. Nakatani, T. Shimonishi, K. Furuya, N. Inostroza-Pino, P. Caselli, A. Das

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Monday AM

Georgia World Congress Center | B216
Protostars
J. Bergner, S. Ioppolo, *Organizers* | C. N. Shingledecker, *Presiding*

8:00 AM. Chemical census of volatile ices in protostellar envelopes with JWST ice mapping. **K. Pontoppidan**, M. Narang, D. Lis, Z. Smith, J. Green

8:35 AM. JWST observations of CO_2 and CO ice: Thermal processing and the 12C/13C ratio in protostellar envelopes. **N. Brunken**

9:10 AM. Sublimation studies of deuterium fractionation in CH_3oh:D_2o processed ices with sublime. **S. Kakkenpara Suresh**, **E.R. Ingman**, O. Wilkins, K.M. Yocum, P.A. Gerakines, S.N. Milam

9:45 AM. Break.

10:15 AM. Chemical-dynamical-spectral modeling of solid- and gas-phase chemistry in star-forming cores. **R.T. Garrod**

10:50 AM. Laboratory study of CO ice hydrogenation and its role in the carbon isotope fractionation of COMs. **E.L. Piacentino**, A. Booth, M. Rajappan, K. Oberg

11:25 AM. Constraining 2D snow surfaces in young planet-forming disks. **M. van 't Hoff**, D. Kacan, L. Tychoniec, B. Tabone, M. McClure, E. van Dishoeck

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Tuesday AM

Georgia World Congress Center | B306
Protoplanetary Disk Ice
J. Bergner, S. Ioppolo, *Organizers* | L. Hornekaer, *Presiding*

8:00 AM. Protoplanetary disk ices with JWST. **J. Bergner**

8:35 AM. Water ice in an edge-on Orion silhouette disk from JWST NIRCam images. **N. Ballering**

9:10 AM. JWST spectroscopy & modelling of interstellar ices: Tracing grain growth in dense clouds and icy layers in protoplanetary disc atmospheres. **E. Dartois**, J. Noble, M. McClure, J. Bergner, A. Boogert, M. Chabot, K. Demyk, H. Linnartz, K. Pontoppidan, A. Sturm, N. Ysard, w. Ice Age, MIDAS and JEDIce teams

9:45 AM. Break.

10:15 AM. Unveiling the volatile ice inventory in protoplanetary disks with JWST: The case of HV Tau C. **J. Santos**, J. Bergner, E. Dartois, M. McClure, J. Noble, K. Oberg

10:50 AM. Molecular abundances in extraterrestrial ices: Interminable quest or end in sight?. **R.L. Hudson**, P.A. Gerakines

11:25 AM. Confined translational-rotational dynamics of H_2 in molecular ices: Applications towards a new interstellar temperature probe. **N. McLane**, L. Duckett, L.G. Dodson

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Wednesday AM

Georgia World Congress Center | B306
Protoplanetary Disk Gas
J. Bergner, S. Ioppolo, *Organizers* | R. T. Garrod, *Presiding*

8:00 AM. Water transport to the planet-forming region in protoplanetary disks: The view from JWST spectroscopy. **A. Banzatti**

8:35 AM. How gas-phase observations of planet forming disks provide insights into their "hidden" ice reservoir. **I.I. Cleeves**

9:10 AM. JWST observations of protostellar outflows and feedback. **D. Harsono**

9:45 AM. Break.

10:15 AM. Impact of chemical transport on disc and planet compositions. **R. Booth**, T. Molyarova, Z. Jonczyk

10:50 AM. Molecular complexity at the epoch of planet formation. **A. Booth**

11:25 AM. Prediction of collisional rate coefficients for water using mixed quantum/classical theory (MQCT). **D. Babikov**

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Solar System
J. Bergner, *Organizer* | S. Ioppolo, *Organizer, Presiding*

2:00 PM. Investigating the composition of the interstellar object 3I/ATLAS using JWST spectroscopy. **M. Cordiner**

2:35 PM. Connecting asteroid hydration and mineralogy to planetesimal processes. **K. de Kleer**

3:10 PM. Thermal and photochemical properties of amorphous water ice with trapped volatiles. **M.S. Gudipati**

3:45 PM. Break.

4:05 PM. Ice species on TNOs: A case of nature versus nurture. **B. Harvison**

4:40 PM. Electronic structure of N_2^+ And O_2^+ For identification of ices on comets. **R.A. Firth**, V.J. Esposito, S. Bromley, D. Bodewits, D. Pierce, R.C. Fortenberry

5:15 PM. Amino acids from methanol–ammonia ices: Connecting interstellar chemistry to asteroids and meteorites. **M. Maney**, N. Lotem, K. Oberg, M. Rajappan, J. Eiler

5:50 PM. Concluding Remarks.