RAS NAM2010

12-16 April 2010, University of Glasgow, UK

Parallel Session 17: 1045-1230, Wed 14th April

A New Era in Astrochemical Star Formation

Call for Talks & Posters

Go to www.astro.gla.ac.uk/nam2010/reg.php to submit your talk or poster abstract

Providing an overview of current research in astrochemistry, this session will bring together the fields of observational astronomy, theoretical modelling, and laboratory astrochemistry. The emphasis will be on astrochemical research in areas that will reap the benefits of current and planned missions such as JCMT, Herschel, ALMA and JWST, and particularly areas associated with star formation in both the near and far universe.

This is an exciting time for the study of astrochemical processes in the far universe. Detections of water ice, amorphous and aromatic hydrocarbons at redshifts ~2, and detections in the early universe (for example CO at z~6) are providing the stimulus for research into star formation in high redshift galaxies, where very different physical parameters are needed for models. In the nearby universe, the improved spatial and spectral resolution offered by new instrumentation will strongly influence models of star and planet formation, enabling, even enforcing, the inclusion of dynamics in chemical models of, for example, nearby circumstellar disks. Such models and observations also require interaction with developing laboratory studies. Our new view of the molecular complexity in local galaxies will dramatically change our understanding of formation processes and evolutionary stages.

Background image: Herschel Space Observatory image of a region near the Galactic Plane (ESA and the SPIRE and PACS Consortia)