

Cep A HW2 region and showed that a cluster of intermediate mass stars is being formed.

Studies of H II regions were presented by Dan Jaffe and James Moran. Dan presented observations of the kinematics in compact and ultracompact H II regions using the [Ne II] emission line at 12.8 μm . The kinematics are inconsistent with the predictions that the exciting stars are moving with high velocities; a disc geometry explains the evolution of very young H II regions better. Jim Moran presented the results of SMA observations of the recombination line maser in MWC 349. The kinetics of the disc around this young massive star is not fully consistent with Keplerian rotation. Although MWC 349 is far in the north, ALMA can provide images with enough resolution to discriminate between kinematical disturbances produced by gas spiralling toward the star from gas ejected from the disc of this source.

Extragalactic molecular astrophysics

ALMA will enable a series of advances in the field of galaxy formation and evolution, particularly at early epochs. Galaxy number counts will be extended to the faintest sources in every ALMA band. The spatial and redshift distribution of these sources, as well as their luminosity functions, will become measurable, as ALMA will not be confusion-limited in any of its bands. It will excel as a follow-up instrument for large-area surveys with bolometer arrays, both in resolving continuum emission and in measuring redshifts from molecular lines. In this context, Pierre Cox presented the new results of the molecular emission at high redshift and Paola Andreani discussed the star formation at high redshifts in obscured sources detected by the Spitzer satellite, stressing the potential of ALMA for understanding the nature of the power sources. Dennis Downes presented recent high angular resolution imaging of the continuum

of the ultraluminous galaxy Arp 220 and concluded that active galactic nuclei (AGN) activity dominates the output, in contrast with previous models that favoured star formation as the dominant mechanism.

Sergio Martin and Daniel Espada argued that detailed chemistry of star formation in nearby galaxies and in the Galactic Centre will be a major topic for ALMA, as will be the relationship between the chemical complexity and the dominating activity in galactic nuclei (AGN or starbursts). Based on a model of molecular emission, Sergio proposed that the power source in Arp 220 could be due to a burst of massive star formation (now in the protostar phase), similar to the hot core phase in Galactic star-forming regions.

Links

Workshop contributions:
<http://www.damir.iem.csis.es/alma2008/>
<http://www.astro.virginia.edu/~rtr/photos/twifest/>

Award of the Ioannes Marcus Marci Medal to Tom Wilson, Associate Director for ALMA



Tom Wilson, who has been at ESO since 2004, first as ALMA Project Scientist and, after 2006, as ESO Deputy Director, was awarded the renowned Ioannes Marcus Marci Medal of the Czechoslovak Spectroscopic Society at a ceremony in Prague. Previous medallists include T. W. Hänsch, the 2005 Nobel Laureate in Physics.

Ioannes Marcus Marci was born in 1595 in Lanškroun, on the border of the former provinces of Bohemia and Moravia, currently in the Czech Republic. In 1627 he was appointed Professor of Medicine at Charles University, Prague, later Dean of the Faculty of Medicine and Rector of Charles University. He was also a private physician to the Emperor Ferdinand III. The results of his research activity have been collected in 16 scientific books. His most important contributions in the field of physics were his studies of the refraction of sunlight by a prism and the explanation of the origin of the rainbow, collected in his work, *Thaumantias. Liber*

de arcu coelesti deque collarum apparentium natura ortu et causis. I. M. Marci died in Prague in 1667.

Since 1977, the I. M. Marci Medal for outstanding achievements in the field of spectroscopy has been awarded annually by the Spectroscopic Society of Ioannes Marcus Marci. This is a non-profit organization for scientific, educational and technical workers with the aims of promoting and fostering advancement in the field of spectroscopy.

The ceremony took place on 3 September 2008 in the Prague City Hall Auditorium, a historic lecture hall in central Prague. Tom presented a lecture on the "Current Status and Scientific Potential of the Atacama Large Millimeter/submillimeter Array" and he and Terry A. Miller (Ohio State University) were awarded the Ioannes Marcus Marci Medal for their contributions to different areas of spectroscopy.