

Report on

# The XXVIth IAU General Assembly

held in Prague, Czech Republic, 14–25 August 2006

Peter Shaver (ESO)

The recent XXVIth General Assembly of the International Astronomical Union, held on 14–25 August in Prague, was a great success. These triennial events always provide a unique opportunity to experience first-hand the progress across the entire range of astronomy, as well as to meet friends and colleagues from one's own and other sub-fields, and this General Assembly certainly lived up to expectation. Some 2800 participants from around the world attended this event.

There were six full symposia during these ten days, seventeen joint discussions (many of which were also more than a day in length), nine special sessions including two on recent 'Hot Topics', as well as meetings of the twelve divisions and forty-one commissions, and the opening and closing general assemblies themselves. Still other scientific meetings took place, including the annual meeting of the European Astronomical Society and meetings on Gaia and ALMA. Thus, the highly-publicised discussion on the definition of Solar-System planets was just one amongst an enormous range of topics, from the history of astronomy to discussions of possibilities for astronomy on the Moon, from business meetings to future large-scale facilities, from NEOs to black holes to the frontiers of cosmology. The scale of an IAU General Assembly is truly vast.

The setting of this year's General Assembly was magnificent Prague, which also hosted the 1967 General Assembly, and the evenings and weekends provided

Photos: H. H. Heyer, ESO (2)



The IAU President of the past three years, Dr. Ron Ekers, addressing the Opening General Assembly.

ample opportunities for participants and guests to experience this city and its great astronomical history. Social events included a traditional ensemble performance, a concert by the Prague Philharmonia, the official dinner with the theme "Back to the Thirties", and a comprehensive suite of tours of Prague and elsewhere in the Czech Republic. Our Czech colleagues were wonderful hosts, and the overall organisation of the myriad aspects of this huge assembly was absolutely professional and flawless.

Highlights of the General Assemblies include plenary invited discourses, and this year they were given by Jill Tarter ("The Evolution of Life in the Universe"), Alan Title ("The Magnetic Field and its Effects on the Solar Atmosphere as Observed at High Resolution"), Shuang Nan Zhang ("Similar Phenomena at Different Scales: Black Holes, Sun, Supernovae, Galaxies and Galaxies Clusters"), and Reinhard Genzel ("The Power of New Experimental Techniques in Astronomy: Zooming in on the Black Hole in the Centre of the Milky Way"). A cosmol-

ogy prize from the Peter Gruber Foundation and co-sponsored by the IAU was awarded to John Mather for his work on the cosmic microwave background.

A meeting such as this is far too vast to summarise, especially as events took place in parallel. But for any one participant there was a wonderful range of topics to choose from – a unique opportunity to broaden one's horizons and learn about many different fields as well as one's own. There will of course be publications covering all the symposia, and many of the other events will be recorded in various ways, including web sites and publications.

Here we can at least list the range of topics covered by the symposia and joint discussions, and mention a few of the special meetings held in addition. The six symposia covered galaxy evolution, near-earth objects, triggered star formation in a turbulent interstellar medium, black holes across the range of masses, convection in astrophysics, and binary stars in contemporary astrophysics. The joint discussions covered cosmic particle acceleration, pulsar emission, solar active regions and magnetic structure, the ultraviolet Universe, the top of the stellar M-L relation, neutron stars and black holes in star clusters, the Universe at  $z > 6$ , solar and stellar activity cycles, supernovae one millennium after SN 1006, planetary exploration missions, pre-solar grains as astrophysics tools, long wavelength astrophysics, large surveys for galactic astronomy, dense stellar systems, new cosmology results from the Spitzer



The large and prominent ESO stand presented ESO's activities to the participants of the General Assembly.

Space Telescope, nomenclature/precession/new models in fundamental astronomy, and seismology of the Sun and sun-like stars.

The special sessions included astronomical facilities of the next decade, teaching and learning astronomy methods, the Virtual Observatory, 'Hot Topics', astronomy for the developing world, astronomical data management, and astronomy in Antarctica. Amongst the future astronomical facilities discussed were JWST, ALMA, LOFAR, the SKA, the TMT, the GMT, the European ELT, high-energy facilities, gravity-wave facilities, neutrino facilities, and the Virtual Observatory. A following session covered future plans from NASA, ESA, Japan, China, the NSF, European strategic planning, and the OECD. Working groups and other activities included astronomical libraries, women in astronomy, young astronomers, 'Universe Awareness' geared to small children primarily in developing countries, and plans for the Year of Astronomy in 2009. In the back-ground to all of this, of course, were the many business meetings of the IAU executive and the divisions and commissions, essential for the world's organisation on astronomy. Resolutions and definitions important to astronomy are decided upon at the general assemblies, and a well-known outcome of this General Assembly was the definition of a planet in the Solar System; the final version resulted in eight Solar-System planets (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune), with Pluto having the distinction of



Photo: L. H. Nielsen, IAU

Dr. Catherine Cesarsky (right), fully engaged in discussions at the Women in Astronomy luncheon.



Photo: H. H. Heyer, ESO

Two former Directors General of ESO, who were both also Presidents of the IAU, attended the General Assembly: Prof. Adriaan Blaauw (IAU President 1976–1979; shown in this photo), and Prof. Lodewijk Woltjer (IAU President 1994–1997).

being the prototype of a new category of trans-neptunian objects. The final version of the two relevant resolutions can be found at [http://www.iau.org/fileadmin/content/pdfs/resolution\\_ga26-5-6.pdf](http://www.iau.org/fileadmin/content/pdfs/resolution_ga26-5-6.pdf).

The IAU General Assembly is where the new officers of the IAU executive, divisions and commissions are elected every three years. The new officers of the executive include Prof. Karel A. van der Hucht of SRON, Netherlands, new IAU General Secretary, Dr. Robert Williams of the Space Telescope Science Institute, new President-Elect, Dr. Catherine Cesarsky, ESO Director General and new Assistant General Secretary. Dr. Cesarsky is the first woman to have the high distinction of being the President of the IAU. The full lists of new IAU officers can be found on the IAU website <http://www.iau.org/>.

Further details about the recent IAU General Assembly in Prague can be found at <http://www.astronomy2006.com/> including PDF copies of the daily newspaper "Dissertatio cum Nuncio Sidereo III" at <http://astro.cas.cz/nuncius/>.

The IAU General Assemblies provide by far the best opportunity for all astronomers from around the world, and particularly young astronomers, to learn about the frontiers of all areas of astronomy, and to meet the leaders in all fields. Narrow topical specialist meetings obviously play a very important role in astronomy today, but they cannot possibly provide the breadth, perspective and learning opportunities of an IAU General Assembly. Also, when one has worked in a variety of fields, this is the only way to meet one's colleagues from all of those fields. An IAU General Assembly is a truly global experience, in the widest sense.

Photo: E. Janssen, ESO



New IAU Officers: from left to right, Prof. Karel A. van der Hucht of SRON, Netherlands, new IAU General Secretary, Dr. Robert Williams of the Space Telescope Science Institute, new President-Elect, Dr. Catherine Cesarsky, ESO Director General and new Assistant General Secretary, and Dr. Ian Corbett (ESO), new Assistant General Secretary.

The new IAU President, Dr. Catherine Cesarsky, addressing the Closing General Assembly.

The next IAU General Assembly will take place in Rio de Janeiro, in 2009. The year 2009 will be a very special one for astronomy, as it is the 400th anniversary of Galileo's first observations with a telescope. The IAU has proposed that 2009 should be designated the International Year of Astronomy; UNESCO has endorsed this resolution, and it is hoped that the UN will soon follow. This will provide an exceptional opportunity to highlight astronomy's role in world culture and science, and many related initiatives will be undertaken in countries and internationally around the world. 2009 is also the 90th anniversary of the IAU, and on 22 July of that year the longest duration total solar eclipse of the 21st century will take place. Thus, the 2009 General Assembly will be a very special one – the centrepiece of the International Year of Astronomy activities.



Report on the Conference on

## Library and Information Services in Astronomy: LISA V

held in Cambridge, Massachusetts, USA, 18–21 June 2006

Uta Grothkopf (ESO)

LISA V, the latest in the series of conferences on Library and Information Services in Astronomy, was held in Cambridge, Massachusetts, in June 2006. More than 100 astronomy librarians, data archive specialists, publishers, and astronomers from 24 countries discussed tools and trends in information retrieval and management. As with previous conferences, ESO played a major role in the organisation and support of LISA V.

Information retrieval, access and storage are changing at a fast pace. Traditionally, astronomy has often been a leader in pursuing and implementing evolving technologies earlier than other subject areas. The reasons are the compara-

tively small number of core journals and databases in astronomy that are excellent testbeds for new tools and techniques, as well as generous funding from space agencies and non-profit organisations. Hence, astronomy librarians are often already applying technologies in their day-to-day work with which colleagues in other disciplines are just becoming acquainted. LISA (Library and Information Services in Astronomy) conferences provide an excellent forum to keep astronomy librarians informed about news in the fields of networked databases, digital data creation and preservation as well as experimental navigation and knowledge discovery tools.

So far, five LISA conferences have been held: the first international meeting ever held specifically for astronomy librarians took place in Washington, DC in 1988; LISA II was hosted by ESO in Garching,

Germany in 1995; LISA III and IV were held in Puerto de la Cruz, Tenerife, Spain in 1998 and Prague, Czech Republic in 2002, respectively.

In June 2006, the fifth LISA conference took place in Cambridge, MA, USA, co-hosted by the Libraries of the Harvard-Smithsonian Center for Astrophysics and Massachusetts Institute of Technology. The conference was attended by 105 participants from 24 countries. Among them were once again almost 20 colleagues who attended thanks to financial aids provided through the Friends of LISA (FOL) committee; FOL traditionally raises funds from vendors, professional societies, institutions, and individuals in order to help astronomy librarians in resource-poor countries to attend LISA conferences. ESO traditionally has made generous donations to FOL. In addition, the local organisers managed to col-