



This is a UNESCO world-wide project, which will start for Europe on January 7, 2009 in Prague

Integration of Czech Astronomy into European Research Structures

Astronomy in the Czech Republic has a rich tradition which can be traced back to times when famous astronomers Tycho Brahe and Johannes Kepler worked together in Prague. The original Prague observatory, located in the Clementinum tower, was the base of later State Astronomical Observatory. After the Czechoslovak Academy of Sciences was established in 1953, it was merged with the Ondřejov Observatory (founded by Josef Jan Frič in 1898, 35 km south-east of Prague), to create the Astronomical Institute which now belongs to the Academy of Sciences of the Czech Republic.

The subject of activities of the Astronomical Institute is the scientific research in astronomy and astrophysics. Particular research topics concern the formation and evolution of stars and stellar systems, the investigation of the Sun, its atmosphere and solar activity which influences the processes on Earth as well as in the whole heliosphere (the so-called 'Space Weather Programme'), the studies of the near-Earth space, dynamics of natural as well as artificial bodies in the solar system, studies of interplanetary matter and its interaction with the Earth atmosphere. Traditionally, a European network is organised to detect automatically the bright meteors. Around 90 scientists, PhD students and post-docs represent the Institute's research staff, which becomes truly international.

Most of scientific activities of the Institute are carried out in frame of a wide international collaboration. The Institute participates in solar and stellar observations at large European facilities on Canary Islands (where one of the largest world-wide solar telescopes GREGOR is now being built with the Institute's involvement), as well as in Chile where the European Southern Observatory (ESO) has its most advanced

telescopes. Since 2007, the Czech Republic is the member-state of ESO. However, not only ground-based telescopes are used. The Institute is also involved in internationally conducted space research, and namely within the European Space Agency (ESA) of which the Czech Republic is now the full member. Participation in space projects like SOHO, INTEGRAL and others is ongoing and the Institute becomes active in future ESA missions (e.g. Gaia, Solar Orbiter). As a sign of international recognition, the Institute was invited to organize the 26th General Assembly of the International Astronomical Union (IAU), held in Prague in 2006.

The Institute is also actively involved in several European programmes supported by the European Commission (EC). Let us mention the design study of the large European Solar Telescope (EST) or the Institute's recent success being the member of a European team which won the prestigious 'Descartes Prize' given by EC.

The Astronomical Institute is a dynamically evolving institution for research in astronomy and astrophysics, having an extensive expertise in many fields and traditional collaboration on both European as well as world-wide level. Currently the Institute develops a Center of Excellence for collaboration with ESO and ESA. In 2009, the Czech Republic will play an important role in the UNESCO project 'International Year of Astronomy – IYA 2009'.



Professor Petr Heinzel,
Director of the Institute



ALMA- Atacama Large Millimeter/submillimeter Array (Chile) – large ESO project with planned Czech involvement (photo: ESO)



2-meter stellar telescope for studies of variable stars (Ondřejov Observatory)