## Report on the 10<sup>th</sup> COSPAR Capacity-Building Workshop

## Norbert Kömle, Space Research Institute, Graz, Austria

The 10<sup>th</sup> COSPAR Capacity-Building Workshop on Planetary Surface Science was held in Harbin, China, from 06<sup>th</sup>-19<sup>th</sup> September 2009. The location of the workshop was the Deep Space Exploration Research Center (DSRC), a department of the Harbin Institute of Technology (HIT). A total of 32 "student participants" and 10 lecturers and tutors (including myself) took part. The former included 8 from India and 10 from China. The rest came from Vietnam, Indonesia, Pakistan and Russia.

The team of lecturers and tutors consisted of two experts from India, two from the US, and 7 from European countries:

A.S. Arya, Space Applications Centre, ISRO, India

S.V. Murty, Coordinator PLANEX programme, Physical Research Laboratory, Ahmedabad, India

Robert Denise, Mission Manager for Phoenix-Mission, NASA-JPL, USA

Shaopeng Huang, University of Michigan, Ann Arbor, USA

Andrew J. Ball, ExoMars Instrument Engineer, ESA-ESTEC, The Netherlands

Yang Gao, Surrey Space Centre, University of Surrey, Guildford, UK

Wlodek Kofman , CNRS, Grenoble, France

Jacek Leliwa-Kopystynski, Institute of Geophysics at Warsaw University, Warsaw, Poland

Stefan Ulamec, DLR Cologne, Germany

Norbert Kömle, Space Research Institute, Graz, Austria

The participants completed an evaluation questionnaire at the end of the workshop, and both that and their individual comments made it clear that they had all found the workshop useful and expected to use what they had learned at it in their future research.

The Organising Committee consisted of the following representatives:

OUYANG Ziyuan, NAOC, Beijing, China

Cui Pingyuan, DSERC, HIT, Harbin, China

Peter Willmore, University of Birmingham, England

Joachim Vogt, Jacobs University, Bremen, Germany

Xu Minqiang, DSERC, HIT, Harbin, China

Wu Ji, Chinese Academy of Sciences, China

Jiang Mianheng, Chinese Academy of Sciences, China

Hans J Haubold, UN Office for Outer Space Affairs, Vienna, Austria R Sridharan, SPL, India

S V S Murty, PRL, India

The local organization was in the hands of Prof. Minqiang Xu and his students at HIT/DSRC, who created a comfortable working environment for the workshop. In the name of all participants and lecturers I would like to thank them for their efforts.



Group photo of the Harbin Capacity Building Workshop in front of the HIT/DSRC Building, where the workshop was held (Photo: R. Denise, JPL).

Thematically, this workshop clustered around several actual space missions. In particular, the recent moon orbiting missions from the Indian and the Chinese Space agency, respectively, (*Chandrayaan-1* and *Chang'e-1*) were in the focus of interest. The workshop offered the opportunity to exchange experiences and discuss results gained from these two missions. Other topics presented were associated with the latest NASA Mars Mission *Phoenix* and with the NASA Mars Rovers Spirit and Opportunity, which provided unprecedented insights into the nature of the Mars surface at low and mid latitudes. Last not least, the third major topics was ESA's comet mission *Rosetta* and its lander *Philae*, which currently carries a large suite of instruments to the short period comet Churyumov-Gerasimenko, where it will arrive in 2014.

This was the second workshop held since the new programme of COSPAR Fellowships was initiated. This programme is intended to facilitate short visits by workshop participants to collaborating institutes, usually those from which the lecturers come. These visits should take place in the years immediately following the workshop and are for carrying out joint research.

DSRC provided a pleasant working environment. On the weekend the participants had the opportunity to participate in a guided tour to the most famous places in and around Harbin. Among the sites visited were the Harbin Tiger Park, the recreation area Sun Island, and the old City of Harbin with its famous Russian-orthodox church.

Funding for the travel costs of the participants came from the *International Astronomical Union* (IAU), the *UN Office for Space Affairs* (Vienna) and *COSPAR*. Local costs for food, accommodation and social events were covered by the *Harbin Institute of Technology* (HIT) and the *Chinese Academy of Sciences* (CAS). A webpage containing the presentations and student projects given at this workshop is available under the address <u>http://astro.hit.edu.cn/cospar2009workshop</u>. It will be maintained by HIT/DSRC for later reference to the workshop material.

N. Koemle Program Coordinator Harbin, 19 September 2009