

Foreword to the Special Issue on the 2012 IEEE International Geoscience and Remote Sensing Symposium (IGARSS'12)

THE 32nd annual IEEE International Geoscience and Remote Sensing Symposium (IGARSS'12) was held from 22 to 27 July at the Congress Center, Munich, Germany. We would like to thank all participants for making IGARSS 2012 in Munich a great success! Around 2700 participants from 68 countries contributed to the IGARSS' theme "Remote Sensing for a Dynamic Earth" in providing high quality presentations and sharing stimulating discussions.

IGARSS 2012 was a very special one with the celebration of the foundation of the Geoscience and Remote Sensing Society 50 years ago and recalling the first IGARSS in Europe ever conducted in Munich 30 years ago. A commemorative book of GRSS society was presented to each participant.

This year's IGARSS had a record number of over 3370 abstract submissions. The Technical Program committee with 105 members met in Frascati on March 2 to assemble an interesting and well-balanced technical program which comprised 288 oral sessions of 5 presentations each, and 146 poster sessions of up to 12 poster presentations. In preparation of this meeting, 1028 active reviewers took care of evaluating the submitted abstracts. The technical areas covered a wide range of themes extending from remote sensing of land, oceans, atmosphere and cryosphere, electromagnetic modeling and advanced image processing to the design of sensors and missions as well as specialized applications, education and policy.

From the 288 oral sessions, around 40% were organized as an invited session and 10% as special sessions including honorary and Technical Committee sessions. Especially, the large number of submitted student papers needs to be highlighted. From the 87 submitted student papers, 10 were selected for the student paper competition.

The IGARSS week was also supported by a variety of technical activities (Tutorials, a Technical Committee and Chapter Luncheon, a Women and Engineering Luncheon, and Technical Tours), by education activities (a Summer School preceding the IGARSS week, a Young Professionals Luncheon, and a School Lab for groups of secondary school students during the week). In addition, an exhibition with nearly 30 leading companies in remote sensing was organized.

Several changes to previous technical programs were introduced that are designed to continue, improve and adapt the needs for communication and scientific exchange as the field of remote sensing continues to evolve and develop rapidly

in term of data availability, technology, product development and science applications. First, with the overwhelming amount of abstracts submitted we needed to increase the number of assigned reviewers and members of the technical committee. Second, to maintain the high quality of the technical program, we decided to assign four reviewers to each submitted abstract. Third, in order to keep the technical program themes up to date, special themes were introduced, covering dynamic Earth processes, data assimilation, integrated Earth observing systems and current as well as upcoming satellite missions. Fourth, the overwhelming number of high quality papers made it unavoidable to increase the number of parallel sessions from 10 to 16. Fifth, each poster was displayed for two days and presented by the authors on one dedicated evening slot. Finally, for the first time, a child care facility was available during the whole week from 08:00 to 17:30 during the session times.

As a novelty this year, we had video poster presentations of selected themes. Two U-shaped areas allowed presentation at the same time of two IGARSS themes with up to 12 posters.

IGARSS 2012 also continued to provide live webcasting of selected technical presentations. This year we provided live webcast for 4–6 selected sessions and an upload webcast that could be downloaded at later time. The webcasts included the presentation material along with a live view of the presenter to enable the remote participants to fully experience the presentations.

Finally, a very typical local social program event was organized with a reception at the "BMW World", a Bavarian dinner at a brewery with traditional live music and dance and an award banquet at the Munich Residenz (historic seat of government and residence of the Bavarian dukes).

All this was possible because our joint and international team has worked very hard and well together in the last four years. With careful planning and organization, achieving a record in attendance and in all conference statistics, we enjoyed the work and the pleasant IGARSS week. We would like to thank the team and acknowledge the General Chairs of IGARSS 2013, Alberto Moreira and Yves-Louis Desnos, for their very hard work and continuous support in all matters.

For this special issue, we received an overwhelming amount of manuscripts, 245 submissions. After a regular rigorous review process, finally 77 papers, that were ready in time, were selected for publication in this special issue. The remaining accepted manuscripts will be published in an upcoming regular issue of JSTARS. We would like to thank all the reviewers for their time and dedication to this

task. Special thanks go to Prof. Jocelyn Chanussot (Editor in-Chief) for his hard work and assistance during the preparation of this special issue.

We wish you a productive and enjoyable reading of the special issue on IGARSS 2012!

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South Australia. She is the science coordinator of the German satellite mission TanDEM-X. From 2009 to 2013 she was a member of the ESA Mission Advisory Group (MAG) of the 7th Explorer Mission CoReH2O. She was Technical Program Co-chair of the IEEE IGARSS 2012 Symposium in Munich. Since 2013 she has been a member of the IEEE GRSS AdCom.



Helmut Rott (M'86–SM'03–F'09) received the Ph.D. degree in meteorology and physics from the University of Innsbruck, Innsbruck, Austria, in 1974, and the Habilitation in meteorology in 1985.

He is a Professor at the Institute of Meteorology and Geophysics, University of Innsbruck, Austria, and co-founder and co-director of the scientific spin-off company ENVEO IT. His research interests include microwave signatures and inversion methods, spaceborne microwave radiometry, SAR interferometry, satellite applications for cryospheric research and hydrology, natural hazards monitoring, and atmospheric radiative transfer. He has participated in several scientific expeditions to Antarctica, Greenland, and Patagonia. His studies on ice shelves and glaciers at the Antarctic Peninsula provided new insights on the vulnerability of polar ice masses to global warming. He has been Principal Investigator of projects in the SIR-C/X-SAR, ERS-1, ERS-2, SRTM, Envisat, Radarsat, ALOS-PALSAR, CryoSat, TerraSAR-X, and TanDEM-X programs. Since 1988 he has been serving on several scientific advisory committees of the European Space Agency (ESA). He is a member of the International Academy of Astronautics. He has held offices in several international scientific associations.

Since 2009 he has been a member of the Scientific Steering Group of the Climate and Cryosphere Project (CliC) of the World Climate Research Programme. He was Technical Program Co-chair of the IGARSS 2012 Symposium.