



**United Nations / Austria Symposium on
“Space Weather Data, Instruments and Models:
Looking Beyond the International Space Weather Initiative”**

Programme

**Austrian Academy of Sciences, Institute for Space Research
Schmiedlstrasse 6, Graz, Austria**

Hosted by the Austrian Federal Ministry for European and International Affairs,
State of Styria and City of Graz, Austrospace
and co-sponsored by the European Space Agency

16 – 18 September 2013

Honorary Committee (in alphabetical order):

C. Stix-Hackl	Federal Ministry for European and International Affairs, Austria
F. Nordlund	European Space Agency
K. Edlinger-Ploder	Member of the Government, State of Styria, Austria
S. Nagl	Mayor, City of Graz, Austria
M. Othman	Director, Office for Outer Space Affairs, United Nations
F. Voves	Governor, State of Styria, Austria

Programme Committee (in alphabetical order):

W. Balogh	Office for Outer Space Affairs, United Nations
J. Davila	NASA, United States of America
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H. Haubold	Office for Outer Space Affairs, United Nations (retired)
O. Koudelka	JOANNEUM RESEARCH and Graz University of Technology, Austria
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C. Legenstein	JOANNEUM RESEARCH
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Monday, 16 September 2013

Morning

08:00 **Registration**

09:00 **Opening Ceremony**

Chairperson: Otto Koudelka, Graz University of Technology and JOANNEUM RESEARCH

09:00 Welcome / Opening Remarks

- *Wolfgang Baumjohann, Austrian Academy of Sciences*
- *Peter Piffel-Percevic, City of Graz*
- *Christine Stix-Hackl, Austrian Federal Ministry for European and International Affairs (Permanent Mission to the UN)*
- *Werner Balogh, United Nations Office for Outer Space Affairs*

10:00 **Introduction, Keynote Addresses**

10:00 20 Years UN/Austria Symposium, Objectives and Logistics of the 2013 Symposium *Werner Balogh
OOSA*

10:30 *Coffee/Tea Break*

11:00 The International Space Weather Initiative *Hans Haubold
OOSA and Centre for Mathematical Sciences,
India*

12:00 *Lunch*

Afternoon

13:30 **Session 1: Worldwide Instrument Arrays, Data Products**

Chairperson: Johannes Ortner, EURISY

Rapporteur: Otto Koudelka, JOANNEUM RESEARCH and Graz Technical University

13:30 The WMO Inter-programme Coordination Team on Space Weather *Jerome Lafeuille
WMO*

13:50 Building on ISWI to Improve Space Weather Services and Global Benefits to Society *Terry Onsager
NOAA*

14:10 SCOSTEP Scientific Programme VARSITI (2014-2018) *Katya Georgieva
Space Research and Technology Institute,
Bulgarian Academy of Sciences*

14:30 MiniMax24 - a One-year SCOSTEP Campaign on Solar-Terrestrial Connections *Tanja Rollett
University of Graz, Austria*

14:45 Current status and plan of the Optical Mesosphere Thermosphere Imagers (OMTIs) *Kazuo Shiokawa
Solar-Terrestrial Environment Laboratory,
Nagoya University, Japan*

15:00	<i>Coffee/Tea Break</i>	
15:30	ICSWSE/MAGDAS Project	<i>Akimasa Yoshikawa International Center for Space Weather Science and Education, ICSWSE, Kyushu University, Japan</i>
15:50	Solar radio spectrometer network e-Callisto	<i>Christian Monstein ETH Zurich, Switzerland</i>
16:10	Contributions of UKM towards the International Space Weather Initiative	<i>Siti Aminah Bahari Institute of Space Science, Universiti Kebangsaan Malaysia (UKM)</i>
16:20	Laboratory of Space Environment (LSEE) And Our effort in Solar EUV Observation for Space Weather	<i>Jilong Peng, Chinese Academy of Sciences, China</i>
16:30	Panel Discussion: Towards Reliable Space Weather Forecasts: Results of the ISWI	<i>Panel members and all participants Chair: Mangala Sharma, Office of Space and Advanced Technology, U.S. Department</i>
17:30	<i>Transfer to the hotel</i>	
19:00	<i>Transfer from the hotel to the “Burgring” (centre of Graz)</i>	
19:30	<i>Reception hosted by the Governor of the State of Styria Franz Voves (Orangery in the Gardens of Graz Burg)</i>	

Tuesday, 17 September 2013

Morning

09:00	<u>Session 2: Data Analysis and Models</u> <i>Chairperson: Hans Haubold, OOSA and Centre for Mathematical Sciences, India Rapporteur: Michael Bergmann, Graz University of Technology, Austria</i>	
09:00	Nonextensive Statistical Mechanics: Outer Space and Weather	<i>Constantino Tsallis National Institute of Science and Technology for Complex Systems, Brazil</i>
10:00	Standard Deviation Analysis vs. Diffusion Entropy Analysis	<i>Hans Haubold OOSA and Centre for Mathematical Sciences, India</i>
10:30	<i>Coffee/Tea Break</i>	
11:00	Modelling the Dynamic of the Ionosphere over Malaysia and its Effect on GPS Positioning During High Solar Activity	<i>Karthigesu Nagarajoo University Tun Hussein Onn, Malaysia</i>

11:20	Ionospheric response to the geomagnetic storm of 15 May 2005	<i>Praveen Galav Mohanlal Sukhadia University, Udaipur, India</i>
11:40	Analysis of solar, interplanetary and ground-based data to study forrush decreases, GLEs, and geomagnetic storms	<i>Badruddin Nil Department of Physics, Aligarh Muslim University, India</i>
12:00	Data Analysis of Ground-based Observations - Automatic flare recognition and filament eruption detection at Kanzelhöhe Observatory	<i>Werner Poetzi Kanzelhöhe Observatory/University of Graz, Austria</i>
12:20	<i>Lunch</i>	
<i>Afternoon</i>		
13:30	<u>Session 3: Data Analysis and Tools</u> <i>Chairperson: Mangala Sharma, Office of Space and Advanced Technology, U.S. Department of State</i> <i>Rapporteur: Werner Balogh, OOSA</i>	
13:30	New products for monitoring and forecasting space weather in South America: regional magnetic indices and GNSS vertical error map	<i>Clezio Marcos De Nardin Head of the Embrace Space Weather Programme, INPE, Brazil</i>
13:50	GPS-TEC measurements at low latitude using UNB Ionospheric Modeling Technique	<i>Dadaso Jaypal Shetti Department of Physics, Smt. Kasturbai Walchand College, India</i>
14:10	The Operational Space Weather Observing and Data Processing System in NSSC, Chinese Academy of Sciences	<i>Cai Yanxia National Space Science Center, Chinese Academy of Sciences, China</i>
14:30	Magnetic reconnection - the mechanism of the space weather changes	<i>Alexandra Alexandrova Space Research Institute, Austrian Academy of Sciences, Austria</i>
14:50	<i>Coffee/Tea Break</i>	
15:30	Solar and interplanetary precursors of geomagnetic storms in solar cycle 23	<i>Jean Uwamahoro Kigali Institute of Education, Rwanda</i>
15:50	Space Weather on Extra-solar Planetary Systems	<i>Arnold Hanslmeier University of Graz, Austria</i>

16:10	Space weather affects on (human) terrestrial life	<i>Christian Bartsch Center for Research in Medical and Natural Sciences, University of Tübingen, Germany</i>
16:30	European Space Weather Week – “Wall of Peace” Initiative	<i>Jean Lilensten CNRS, Institut de Planétologie et d'Astrophysique de Grenoble (IPAG), France</i>
16:50	The ISWI Website and the ISWI Newsletter	<i>Dimitar Danov Space Research and Technology Institute Bulgarian Academy of Sciences, Bulgaria</i>
17:15	<i>Transfer to the "Andreas-Hofer-Platz" (centre of Graz)</i>	
17:45	<i>Guided tour through the Old City</i>	
19:00	<i>Reception hosted by the Mayor of the City of Graz Siegfried Nagl (Rathaus)</i>	

Wednesday, 18 September 2013

Morning

9:00	<u>Session 4: Discussions on the Report and Future Activities Beyond ISWI</u> <i>Chairperson: Werner Balogh & Hans Haubold, OOSA</i>	
9:00	Panel Discussion: Recommendations for the Space Weather Expert Meeting at STSC in February 2014	<i>Panel members and all participants Chair: Terry Onsager, NOAA</i>
10:30	<i>Coffee/Tea Break</i>	
11:00	Symposium Review, Observations and Recommendations	<i>All Symposium Participants</i>
	Discussion of Future BSSI Activities	<i>All Symposium Participants</i>
12:30	<u>Closing Session</u>	
	Distribution of Certificates and Closing Remarks by the organizers	<ul style="list-style-type: none"> ○ <i>Austrian Federal Ministry for European and International Affairs</i> ○ <i>United Nations Office for Outer Space Affairs</i>
13:00	<i>Lunch</i>	
14:00	<i>Transfer to the hotel and end of the Symposium</i>	