

Monday, 2 July 2018

8:30-10:00

Registration

Welcome

10:00	Petra & Christina		Opening of the workshop
10:10	Monika	Korte	Greetings from IAGA vice president
10:20	Jens	Wickert	The German Research Centre for Geosciences GFZ: Overview and Recent Results from GNSS Earth Observation

Session 1

Chair: Petra Koucka Knizova

11:00	Mai Mai	Lam	IMF-driven change to the Antarctic tropospheric temperature due to the global electric circuit
11:40	Dimitry	Pokhotelov	Dynamic forcing of thermosphere from below: numerical simulations and radar data
12:00	Denis	Khabituev	Vertical transport of the winter upper atmosphere in the Northern Hemisphere

12:20 - 13:30

Lunch

Session 2

Chair: Mai Mai Lam

13:30	Aramesh	Seif	A Study of Ionospheric Irregularities in the Vicinity of Magnetic Dip Equator during Daytime using Ground-and-Space Based Measurements
14:10	Ankur	Kepkar	Annual variability of equatorial plasma bubbles observed by GPS radio occultations based on FormoSat-3/COSMIC measurements
14:30	Joseph	Olwendo	Comparison of ionospheric scintillation and in situ electron density variations as measured by the Swarm satellites.
14:50	Shin-Yi	Su	Post-Midnight Quiettime Equatorial Ionospheric Irregularity Occurrences in Relation to the Atmospheric Convective Disturbances
15:10	Lalit Mohan	Joshi	Characteristics of ionospheric scintillations in the declining phase of solar cycle 24

15:30 - 16:00

Coffee Break

Session 3

Chair: Erdal Yiğit

16:00	Lung-Chih	Tsai	Global morphology of ionospheric sporadic E layer from the FS3/COSMIC GPS radio occultation experiment
16:20	Fazlul	Laskar	Interhemispheric Meridional Circulation During Sudden Stratospheric Warmings
16:40	Christoph	Zülicke	Coupling of stratospheric warmings with mesospheric coolings
17:00	Toshihiko	Hirooka	Climatological features of planetary waves in the middle atmosphere during the Northern Hemisphere winter

18:00

Welcome Diner

Tuesday, 3 July 2018

Session 4

Chair: Charles Lin

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|-------|---------|-------------|---|
| 8:30 | Erdal | Yigit | Interactions between small-scale gravity waves and large-scale diurnal migrating tide in Earth's whole atmosphere system |
| 8:50 | Kathrin | Baumgarten | Seasonal variation of gravity wave parameters using different filter methods with daylight lidar measurements at mid-latitudes |
| 9:30 | Fazlul | Laskar | Long Term Variation of Inertia Gravity Waves in the Arctic Summer Mesosphere |
| 9:50 | Lena | Schoon | A novel method for the extraction of local gravity wave parameters: description, validation and application |
| 10:10 | Irina | Strelnikova | Downward-propagating gravity waves characteristics obtained from Lidar observations |

10:30-11:00

Coffee break

Session 5

Chair: Fazlul Laskar

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|-------|-----------|----------------|--|
| 11:00 | Olga | Borchevkina | Gravity waves in observations of variations in the atmosphere and ionosphere parameters (modeling and experiment) |
| 11:40 | Alejandro | de la Torre | Rayleigh Lidar Observations of Gravity Wave Activity above the Southern Tip of South America |
| 12:00 | Alejandro | de la Torre | Distortions in calculated gravity wave parameters during slanted atmospheric soundings and future possibilities from collocated profiles |
| 12:20 | Petra | Koucka Knizova | Solar terminator and corresponding variability within ionospheric plasma |

12:40 - 13:40

Lunch

Session 6

Chair: Kathrin Baumgarten

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|-------|-----------|----------|---|
| 13:40 | Elisabeth | Blanc | The ARISE (Atmospheric dynamics Research InfraStructure in Europe) project |
| 14:20 | Yuliya | Kurdyeva | Numerical simulation of wave propagation from atmospheric pressure variations registered with the microbarographs |
| 14:40 | Charles | Lin | Observations and simulations of concentric and medium scale traveling ionospheric disturbances triggered by typhoons |
| 15:00 | Yaser | Rahmani | Irregularities in Electron density above mesoscale thunderstorms using Global Navigation Satellite Systems Measurements |

15:20-15:50

Group photo / Coffee break

Session 7

Chair: Yuliya Kurdyeva

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|-------|---------------------|-----------|--|
| 15:50 | Nadja | Samtleben | Development of planetary waves in the mesosphere due to local gravity wave forcing in the stratosphere |
| 16:10 | William | Ward | Implications of dynamical variability on the energetics and oxygen composition in the mesopause region |
| 16:30 | Cornelius Csar Jude | Salinas | Local-time Variations of Low Latitude Lower Thermospheric SABER CO2 during Equinoctial Solar Minimum |
| 16:50 | Tilo | Fytterer | Model studies of short-term variations induced in trace gases by particle precipitation in the mesosphere and lower thermosphere |
| 17:30 | Dora | Pancheva | Global Distribution and Interannual Variability of Quasi-6-Day Waves: Results Based on the NOGAPS-ALPHA Reanalysis Model and MLS on the NASA Aura Satellite Measurements |

Wednesday, 4 July 2018

Session 8

Chair: Petra Koucka Knizova

8:15	Fedor	Bessarab	Tidal analysis of the thermospheric parameters in January 2009 derived from the Entire Atmosphere Global Model (EAGLE).
8:35	Maxim	Klimenko	Entire Atmosphere Global model (EAGLE): electrodynamics improvement in comparison to GSM TIP model

09:00-18:00

Excursion

Thursday, 5 July 2018

Session 9

Chair: William Ward

8:30	Christos	Haldoupis	A tutorial review of Sporadic E layers
9:10	Christina	Arras	On the influence of solar cycle on global sporadic E parameters
9:30	Christoph	Jacobi	Quarterdiurnal signature in sporadic E occurrence rates based on COSMIC/FORMOSAT-3 GPS radio occultation observations
9:50	Loren	Chang	On the Relationship between E Region Scintillation and ENSO Observed by FORMOSAT-3/COSMIC
10:10	Christos	Haldoupis	Is there a conclusive evidence on lightning-related effects on Sporadic E layers?

10:30 - 11:10

Coffee break

Session 10

Chair: Loren Chang

11:10	Irina	Medvedeva	Comparison of the atmospheric wave activity in the MLT and ionospheric F2-region from the hydroxyl airglow observations and radio sounding
11:30	Dmitry	Korotyshkin	Diurnal and seasonal temperature oscillations near 90 km as seen with SkiYMET meteor radars at Collm and Kazan
11:50	Friederike	Lilienthal	Numerical simulation of wavenumber 3 tidal forcing mechanisms

12:10 - 13:20

Lunch

Session 11

Chair: Friederike Lilienthal

13:20	Cornelius Csar Jude	Salinas	Solar Cycle Response of CO ₂ over the Austral Winter Mesosphere and Lower Thermosphere Region
13:40	Dieter	Peters	Towards the quasi-bidecadal oscillation in the summer mesopause region over Western Europe
14:00	Michal	Kozubek	New reanalyses and how they represent middle stratosphere dynamics
14:20	Ganesh	Lalgudi Gopalakrishnan	Towards the calibration of empirical and physics-based neutral density models
14:40	Renata	Lukianova	Thermal and dynamic regimes of the auroral mesosphere inferred from the meteor radar and ionozonde observations

15:00 - 17:00

Postersession

Friday, 6 July 2018

Session 12

Chair: Christina Arras

8:30	Chao	Xiong	The ionospheric response to the solar flares and geomagnetic storm on 06-10 September 2017 and their influences on ground-based GNSS receivers
8:50	Veronika	Barta	Investigation of Ionospheric Absorption Changes Caused by Solar Flares and Solar Proton Events in December, 2006 using Ionosonde and DEMETER VLF Observations
9:10	Olesya	Yakovchuk	High resolution particle precipitation – a bottom up approach
9:30	Boris	Shpynev	Features of the longitudinal variations of the geomagnetic field and the ionosphere in the Northern Hemisphere in quiet and disturbed conditions
9:50	Kseniia	Golubenko	The contribution of bremsstrahlung effect to the ionization of the polar atmosphere during the relativistic electron precipitation
10:10	Rajesh	Vaishnav	Delayed response of ionospheric electron content during low and high solar activity
10:30-11:00			Coffee break
11:00	Loren	Chang	Discussion SCOSTEP
			Closing Workshop
12:00			Lunch