

Programme Summary IWGI2019

Monday, 23rd September 2019	8:00-	Registration
	08:45 – 09:00	Welcome
	09:00 – 10:30	Session Ground Based Ionosphere Monitoring and Modelling
	10:30 – 11:00	Coffee break
	11:00 – 12:50	Session Ground Based Ionosphere Monitoring and Modelling
	12:50 – 14:00	Lunch break
	14:00 – 15:30	Session Space Based Ionosphere Monitoring and Modelling
	15:30 – 16:00	Coffee break
	16:00 – 17:30	Session Ionosphere / Plasmasphere Coupling and Radio Occultation
Tuesday, 24 th September 2019	9:00 – 10:30	Session Ionospheric / Thermospheric Coupling Processes
	10:30 – 11:00	Coffee Break
	11:00 – 12:50	Session Ionospheric Effects on Navigation and Positioning
	12:50 – 14:00	Lunch break
	14:00 – 15:30	Session Multi-GNSS, Current Status and Advances
	15:30 – 16:00	Coffee Break
	16:00 – 17:30	Session Space Weather Impact on Earth/Space systems and infrastructures
	19:00	Workshop Dinner
Wednesday, 25 th September 2019	9:00 – 10:30	Session Ionosphere
	10:30 – 11:00	Closing Workshop
	11:00 – 11:30	Coffee Break
	11:30	Excursion
	20:00	END

Detailed Programme (oral presentations) IWGI2019

Registration, Monday, 23/09/2019, 08:00 –	
Welcome, Monday, 23/09/2019, 08:45 – 09:00	
IWGI2019 Workshop	

Ground Based Ionosphere Monitoring and Modelling, Monday, 23/09/2019, 9:00 – 10:30 Chairs: Ludger Scherliess, Manuel Hernández-Pajares	
09:00	Specification of the Ionosphere Plasma Distribution obtained from a Physics-Based Data Assimilation Model- Ludger Scherliess
09:30	Real Time GNSS data processing for the Ionosphere Monitoring and Prediction Center (IMPC)- Martin Kriegel
09:50	Experimental IGS Real-Time Global Ionospheric Total Electron Content Modeling- Zishen Li
10:10	(Near) real-time modelling of the global Vertical Total Electron Content using multi-GNSS ionosphere observations- Michael Schmidt
10:30	Coffee Break

Ground Based Ionosphere Monitoring and Modelling, Monday, 23/09/2019, 10:30 – 12:40 Chairs: Ludger Scherliess, Manuel Hernández-Pajares	
11:00	An alternative ionospheric correction algorithm for Galileo satellite navigation users- Mainul Hoque
11:30	BeiDou-3 Global Ionospheric Correction Model (BDGIM): Algorithms and Quality Analysis- Yunbin Yuan
11:50	Combining ground and space-based geodetic measurements for multi-dimensional modeling of the ionosphere- Mahdi Alizadeh
12:10	Estimation of COSMIC GPS receiver DCB based on Inequality Constrained Least Square and Multi-layer Mapping Function- Liangliang Yuan
12:30	Accuracy and Stability Analysis of BDS-3 Satellite DCB Solutions with Constrained Broadcast Ionosphere- Yongxing Zhu
12:50	Lunch break

Space Based Ionosphere Monitoring and Modelling, Monday, 23/09/2019, 14:00 – 15:30 Chairs: Mainul Hoque, Lung-Chih Tsai	
14:00	Applications of the Linear Vary Chapman model in Ionospheric GNSS Radio Occultations- Manuel Hernández-Pajares
14:30	Ionospheric electron density and irregularity observations using COSMIC and COSMIC2 GPS radio occultation data- Lung-Chih Tsai
14:50	Sporadic E layer properties at northern polar latitudes- Christina Arras

15:10	Assimilation of space-based sTEC into the NeQuick topside in the frame of the MuSE project- Tatjana Gerzen
15:30	Coffee break

Ionosphere/Plasmasphere Coupling and Radio Occultation, Monday, 23/09/2019, 16:00 – 17:50 Chairs: Norbert Jakowski, Fabricio dos Santos Prol	
16:00	Plasmasphere modelling and vertical coupling- Norbert Jakowski
16:30	International Reference Ionosphere - Standard and Real-Time Solutions- Dieter Bilitza
16:50	Ionospheric Tomography at the Brazilian Region using a RO-based Climatological Model- Fabricio dos Santos Prol
17:10	Initial Nighttime Ionospheric Observations with Advanced Ionospheric Probe Onboard FORMOSAT-5 Satellite Shin-Yi Su
17:30	Comparative Planetology of Martian Ionosphere- Noora Alameri

Ionospheric / Thermospheric Coupling Processes, Tuesday, 24/09/2019, 9:00 – 10:30 Chairs: Claudia Borries, Michael Schmidt	
09:00	Travelling Ionospheric Disturbances studied in the EU H2020 TechTIDE project- Claudia Borries
09:30	Responses of the African Equatorial/Low Latitude Ionosphere to Geomagnetic Storms during Over Solar Cycle 24- Andrew Akala
09:50	Numerical modeling of the simultaneous response of subionospheric VLF signals over multiple propagation paths due to solar flare effects on lower ionosphere- Tamal Basak
10:10	Validation of IGS IAAC maps during high and low solar activity periods: year 2014 and 2018 case study- Pawel Wielgosz
10:30	Coffee Break

Ionospheric Effects on Navigation and Positioning, Tuesday, 24/09/2019, 11:00 – 12:50 Chairs: Yannick Béniguel, Martin Kriegel	
11:00	Ionosphere Scintillations Probabilities- Yannick Béniguel
11:30	Ionospheric scintillation monitoring with GNSS technique: A case study over Canadian region- Ningbo Wang
11:50	Estimation of ionospheric scintillation parameters using the stripe on equatorial SAR data- Jun Su Kim
12:10	Accuracy Assessment and Improvement of GNSS Precise Point Positioning under Ionospheric Scintillation- Wenfeng Nie

12:30	Phase and amplitude scintillations for GPS receivers on board the Swarm and GOCE satellites- Chao Xiong
12:50	Lunch

Multi-GNSS, Current Status and Advances, Tuesday, 24/09/2019, 14:00 – 15:30 Chairs: Shuanggen Jin, Daniel Medina	
14:00	Assessment of ionospheric delay effects on multi-GNSS PPP performances- Shuanggen Jin
14:30	Partial Ambiguity Resolution for Reliable GPS/Galileo Positioning- Daniel Medina
14:50	Overbounding Residuals of the Ionospheric-free Combination- Stefan Schlüter
15:10	Time-varying Characteristics Analysis of Receiver Differential Code Bias- Ang Liu
15:30	Coffee break

Space Weather Impact on Earth/Space systems and infrastructures, Tuesday, 24/09/2019, 16:00 – 17:30 Chairs: Jens Berdermann, Jens Wickert	
16:00	Space weather effects on navigation services- Jens Berdermann
16:30	Space Weather Monitoring at GFZ: Overview and Recent Results- Jens Wickert
16:50	Space weather effects on the energy infrastructure in Poland- Agnieszka Gil-Swidarska
17:10	Solar radio interference of GNSS signals- Hiro Sato
19:00	Workshop Dinner

Ionosphere, Wednesday, 25/09/2019, 9:00 – 11:00 Chairs: Jens Berdermann, Shuanggen Jin, Mainul Hoque	
09:00	Small satellites for the research on the solar terrestrial system- Thomas Terzibaschian
09:30	The NMDB database as a support for the monitoring of radiation exposure aboard aircraft- Christian Steigies
09:50	Revising More Than 20 Years of EPHIN Ion Flux Data—A New Data Product for Space Weather Applications - Bernd Heber
10:10	

10:30	Closing Workshop
11:00	Coffee Break
11:30	Excursion

Poster presentations IWGI2019

Poster Presentation, Wednesday, 23/09/2019, 10:30 - 24/09/2019, 17:30	
	Multi-GNSS Bias Estimation in Ionosphere Analysis- Ningbo Wang
	Precise estimation of the ionospheric response to solar EUV changes- Erik Schmölder
	Analysis of precursors for Large-Scale Travelling Ionospheric Disturbances- Arthur Amaral Ferreira
	A new Method for Evaluating the Extraction Accuracy of GNSS Ionospheric TEC- Yongxing Zhu
	Evaluation of ELDI events for COSMIC and CHAMP- Sumon Kamal
	Validation of Neustrelitz Peak electron Density Model (NPDM) and Peak Height Model (NPHM) using ground- and space-based observations- Yulia Hresko