

Session 6 – Modelling, Database and Data Analysis Tools for Solar-Terrestrial Physics

Conveners: Daniel Marsh, Yoshizumi Miyoshi, Annika Seppälä

Day 4: February 24, 2022

Day 4-Time Slot 2 (D4-TS2): February 24, 2022 – GMT 0450 – 0640 IST 1020 – 1210		
<i>Session Chair(s):</i> Yoshizumi Miyoshi		
GMT	IST	Title of the Abstract
0450 – 0505	1020 – 1035	Abstract ID: STP15-ABS-051 Title: An automated routine to generate high fidelity low-frequency spectro-polarimetric solar radio images with SKA precursor <i>Presenting Author: Devojyoti Kansabanik</i>
0505 - 0515	1035 - 1045	Abstract ID: STP15-ABS-097 Title: Characterising Solar Wind Outflows Observed in the Varying field of view of WISPR onboard Parker Solar Probe <i>Presenting Author: Ritesh Patel</i>
0515 - 0525	1045 - 1055	Abstract ID: STP15-ABS-195 Title: A Theoretical Model of the Near-Surface Shear Layer of the Sun <i>Presenting Author: Bibhuti Jha</i>
0525 – 0540	1055 – 1110	Abstract ID: STP15-ABS-005 Title: Long-Term Evolution of the Sun's magnetic field during Cycles 15-19 based on their proxies from Kodaikanal Solar Observatory <i>Presenting Author: Bidya Binay Karak</i>
0540 – 0555	1110 - 1125	Abstract ID: STP15-ABS-246 Title: Modeling the large scale irregularities in the F region polar ionosphere <i>Presenting Author: Renata Lukianova</i>
0555 – 0610	1125 – 1140	Abstract ID: STP15-ABS-013 Title: Application of the global NM network for assessment of spectra and anisotropy and related terrestrial effects of strong SEP <i>Presenting Author: Alexander Mishev</i>
0610 - 0640	1140 - 1210	Breakout Session

Day 4-Time Slot 3 (D4-TS3): February 24, 2022 – GMT 1100 – 1250 IST 1630 – 1820		
<i>Session Chair(s):</i> Daniel Marsh/Yoshizumi Miyoshi		
GMT	IST	Title of the Abstract
1100 – 1115	1630 – 1645	Abstract ID: STP15-ABS-243

		Title: A survey of the variability of the D-region ionosphere in WACCM-D <i>Presenting Author: Daniel Marsh</i>
1115 – 1125	1645 – 1655	Abstract ID: STP15-ABS-067 Title: Performance of PCA-NN and PCA-MRM models for TEC over the Iberian Peninsula <i>Presenting Author: Anna Morozovaen</i>
1125 – 1140	1655 – 1710	Abstract ID: STP15-ABS-227 Title: Data assimilation of Solar magnetic observations for improvement of the 11-year Solar Cycle prediction <i>Presenting Author: Ching Pui Hung</i>
1140 – 1155	1710 – 1725	Abstract ID: STP15-ABS-106 Title: Ionospheric D-region modelling: variation of ionospheric parameters during year and solar cycle, and satellite signal delay during X-ray flare influence <i>Presenting Author: Aleksandra Nina</i>
1155 – 1205	1725 – 1735	Abstract ID: STP15-ABS-152 Title: Assessment of the accuracy of IRI-2016 model over the low-latitude ionosphere along the African western coast of the Atlantic Ocean during the declining (2016–2017) and minimum (2018) phases of solar cycle 24 <i>Presenting Author: A. O. Akala</i>
1205 – 1215	1735 – 1745	Abstract ID: STP15-ABS-064 Title: Multi-instrument STIX microflare study <i>Presenting Author: Jonas Saqri</i>
1220 - 1250	1750 – 1820	Breakout Session

Day 4-Time Slot 5 (D4-TS5): February 24, 2022 – GMT 1440 – 1630 IST 2010 – 2200		
Session Chair(s): Daniel Marsh		
GMT	IST	Title of the Abstract
1440 – 1500	2010 – 2030	Abstract ID: STP15-ABS-048 Title: The International Heliophysics Data Environment Alliance (IHDEA): An Organization to Promote Sharing of Heliophysics Digital Resources and to Enhance Science <i>Presenting Author: Shing Fung (Invited)</i>
1500 – 1515	2030 – 2045	Abstract ID: STP15-ABS-015 Title: Estimation of ionospheric critical plasma frequencies from GNSS-TEC measurements using artificial neural networks <i>Presenting Author: Vivian Otugo</i>
1515 – 1530	2045 – 2100	Abstract ID: STP15-ABS-205 Title: Catalogue of Calibrated Sunspot Areas since 1874 and its Applications <i>Presenting Author: Sudip Mandal</i>
1530 – 1540	2100 – 2110	Abstract ID: STP15-ABS-343 Title: High-cadence science-quality solar EUV irradiances from GOES -14 and -15 data <i>Presenting Author: Allyssa Riley</i>

1540 – 1555	2110 – 2125	Abstract ID: STP15-ABS-108 Title: Development of a special catalog of magnetic field variations at the Panagurishte station, Bulgaria <i>Presenting Author: Veneta Guineva</i>
1600 - 1630	2130 – 2200	Breakout Session

Day 5: February 25, 2022

Day 5-Time Slot 1 (D5-TS1): February 25, 2022 – GMT 0300 – 0450 IST 0830 – 1020		
Session Chair(s): Annika Seppälä		
GMT	IST	Title of the Abstract
0300 – 0320	0830 – 0850	Abstract ID: STP15-ABS-245 Title: Applications of machine learning in the solar-terrestrial system <i>Presenting Author: Jacob Bortnik (Invited)</i>
0320 – 0335	0850 – 0905	Abstract ID: STP15-ABS-142 Title: Magnetohydrodynamic models using multi-species computations in Non Local Thermodynamic Equilibrium: The case of Hydrogen and Helium. <i>Presenting Author: Victor Hugo De la Luz Rodriguez</i>
0335 – 0345	0905 – 0915	Abstract ID: STP15-ABS-278 Title: The integrated data repository-analysis environment developed by ERG Science Center (ERG-SC) <i>Presenting Author: Tomoaki Hori</i>
0345 – 0355	0915 – 0925	Abstract ID: STP15-ABS-149 Title: Deflection and Rotation of Flux Rope Coronal Mass Ejections during Solar Cycles 23 and 24 <i>Presenting Author: Hong Xie</i>
0355 – 0410	0925 – 0940	Abstract ID: STP15-ABS-019 Title: Sun Runner: a new tool to simulate the solar wind and coronal mass ejections <i>Presenting Author: José González</i>
0410 – 0420	0940 – 0950	Abstract ID: STP15-ABS-328 Title: Analytic Solution for the Slowly Rotating Polytopic Fluid Sphere <i>Presenting Author: Priya Elias</i>
0420 – 0450	0950 – 1020	Breakout Session

Day 5-Time Slot 2 (D5-TS2): February 25, 2022 – GMT 0450 – 0640 IST 1020 – 1210		
Session Chair(s): Yoshizumi Miyoshi / Annika Seppälä		
GMT	IST	Title of the Abstract
0450 – 0500	1020 – 1030	Abstract ID: STP15-ABS-166 Title: Investigating the fine structures of EMIC waves: Simultaneous rising and falling tones

		<i>Presenting Author: Biswajit Ojha</i>
0500 – 0510	1030 – 1040	Abstract ID: STP15-ABS-257 Title: Modelling and Predicting Monthly Sunspot Relative Number through Structural Time Series Modelling <i>Presenting Author: Kishore Kumar Grandhi</i>
0510 – 0520	1040 – 1050	Abstract ID: STP15-ABS-237 Title: Study of relevant D-region parameters during solar X-ray flares and seasonal & solar cycle effects therein using VLF signal propagation effects and numerical methods <i>Presenting Author: Tamal Basak</i>
0520 – 0530	1050 – 1100	Abstract ID: STP15-ABS-214 Title: A comparative study of ion beam and velocity shear driven resonant instability of kinetic Alfvén waves with κ -electrons <i>Presenting Author: Krushna Barik</i>
0530 – 0540	1100 – 1110	Abstract ID: STP15-ABS-194 Title: A Machine Learning Approach towards Segmentation and Analysis of Solar Filaments from Kodaikanal Solar Observatory Hand-drawn Archive <i>Presenting Author: Aditya Priyadarshi</i>
0540 – 0550	1110 – 1120	Abstract ID: STP15-ABS-087 Title: Tsallis entropy analysis on short-time variations of Joule heating at high latitudes during disturbed periods <i>Presenting Author: Aswini Thampi S L</i>
0550 – 0605	1120 – 1135	Abstract ID: STP15-ABS-236 Title: Data-driven sunspot groups classification compared with the Locarno catalogue <i>Presenting Author: Egor Illarionov</i>
0610 - 0640	1140 – 1210	Breakout Session