

Programma Congresso SWICo 2021

Agenzia Spaziale Italiana, 9 – 11 Febbraio 2022

Mercoledì 9 Febbraio 2022

8:30 – 09:30 Accoglienza

09:30 – 10:30 Saluti istituzionali

Ing. Giorgio Saccoccia, *Presidente ASI*

Prof. Marco Tavani, *Presidente INAF*

Dr.ssa Fabrizia Buongiorno - *INGV, Coordinatrice Centro di Osservazione della Terra dallo Spazio*

Dr. Corrado Spinella - *CNR, Direttore Dipartimento Scienze Fisiche e Tecnologie della Materia*

Ing. Mario Cosmo - *ASI, Direttore Scienza e Ricerca*

Dr.ssa Barbara Negri - *ASI, Responsabile Unità Volo Umano e Sperimentazione Scientifica*

10:30 – 11:54 Comunicazioni (Presiede: F. Berrilli)

10:30 M. Messerotti *La Rete Nazionale di Servizi per lo Space Weather dell'INAF* (remoto)

10:42 M. Graziani *Time dependence of Electron and Positron fluxes in primary Cosmic Rays with the Alpha Magnetic Spectrometer* (remoto)

10:54 A. Bemporad *Space weather related activities and projects on-going at INAF-Turin Observatory*

11:06 D. Calchetti *SO/PHI on Solar Orbiter, the first magnetograph to leave the Sun-Earth line* (remoto)

11:18 D. Sabbagh *Study of the foF2 variations at the Ionospheric Observatory of Rome during the last solar minima, in relation to the geomagnetic activity*

11:30 G.E. Capuano *Effects of the chromospheric Ly α line profile shape on the determination of the solar wind outflow velocity using the Doppler dimming technique* (remoto)

11:42 F. Faldi *Real time monitoring of Solar Energetic Particles outside the ISS with the AMS instrument*

11:54 – 12:10 Intervallo

12:10 – 13:34 Comunicazioni (Presiede: M. Casolino)

12:10 M. Marongiu *A Python Approach for Solar Data Analysis: SUNDARA (SUNDish Active Region Analyser)* (remoto)

12:22 E. De Angelis *SWEATERS-Space WEATHer Ena Radiation Sensors*

12:34 V. Formato *Precision measurement of the daily P and He fluxes in Cosmic Rays and their time variations with the Alpha Magnetic Spectrometer*

12:46 F. Donnini *Precision measurement of the Monthly nuclei fluxes in Cosmic Rays with Alpha Magnetic Spectrometer on the International Space Station (remoto)*

12:58 F. Chiappetta *Proton energy spectra of Energetic Storm Particle events and relation with shock parameters and turbulence (remoto)*

13:10 D. Di Mauro *Geomagnetic field variations observed at Lampedusa and comparison with the other Italian observatories*

13:22 C. Grimani *Energy dependence of galactic cosmic-ray variations for Space Weather Applications (remoto)*

13:34 – 15:00 Pranzo

15:00 – 17:24 Comunicazioni (Presiede: G. Consolini)

15:00 V. Romano *Space weather for civil aviation*

15:12 P. Massa *The STIX image reconstruction problem: early results*

15:24 R. Foldes *Towards an operational tool for estimating the plasmaspheric mass density using ground-based magnetometer measurements (remoto)*

15:36 T. Alberti *The solar wind between 0.1 and 0.6 AU: insights from Parker Solar Probe – BepiColombo radial and magnetic alignments*

15:48 S. Mulas *Scientific development of the SRT/SDSA for the implementation of solar observations and radio-science configurations (remoto)*

16:00 D. Recchiuti *On the transmission of compressional fluctuations from the solar wind to the magnetosphere: an analysis of critical aspects*

16:12 P. Romano *INAF - Catania Solar Telescope contribution to the ESA - Space Weather Service Network (remoto)*

16:24 D. Del Moro *The Tor Vergata Synoptic Solar Telescope and the Space Weather Services at UNITOV*

16:36 A. Pellizzoni *Solar Imaging with INAF Radio Telescopes: Early Science Results and Space Weather Applications (remoto)*

16:48 R. Speziali *He solar activity MOF monitor robotic telescope: first binocular images*

17:00 M. Molinaro *TSRS-1.0: heritage data and new services (remoto)*

17:12 M. Moroni *Study of radiation environment for Low-Earth Orbit spacecraft in view of ENA detection for SWE*

17:24 Conclusione lavori prima giornata

Giovedì 10 Febbraio 2022

08:30 – 09:00 Accoglienza

9:00 – 10:30: *Assemblea Generale e Candidature – Prima parte*

10:30 – 10:45 *Intervallo*

10:45 – 11:20 *Conferimento Premio Franco Mariani*

11:20 G. Carnevale (Vincitore) *MHD turbulence features in solar wind high-speed streams: solar origin or dynamic evolution?*

11:35 F. Siciliano (Menzione) *Forecasting SYM-H Index: A Comparison Between Long Short-Term Memory and Convolutional Neural Networks*

11: 50 *Apertura Votazioni*

11:50 – 13:26 *Comunicazioni* (Presiede: S. Lepidi)

11:50 A. Milillo *MESSENGER observations of Na⁺ enhancement at Mercury's northern magnetospheric cusp during Flux Transfer Event Showers*

12:02 S. Benella *Kramers-Moyal analysis of magnetic field fluctuations in the inner heliosphere*

12:14 R. Reda *Long-term correlations in solar proxies and solar wind parameters*

12:26 S. Orsini *The exospheric Na high latitude emission, as observed from ground-based stations: a link to solar wind precipitation at Mercury*

12:38 S. Guglielmino *UV observations of small-scale heating events in the solar atmosphere* (remoto)

12:50 I. Ermolli *IBIS 2.0: enabling new observations of small scale plasma processes in the solar atmosphere*

13:02 M. Cantoresi *Analysis of cancellation index in photospheric magnetic fields associated to coronal holes*

13:14 S. Di Matteo *On the role of solar wind periodic density structures in radiation belt electron loss as observed by the BARREL mission* (remoto)

13:30 – 15:00 *Pranzo*

15:00 – 17:12 *Comunicazioni* (Presiede: F. Zuccarello)

15:00 C. Scotto *New version of Autoscala for the ionospheric station of Tucumán with N(h) estimation and ESF detection capabilities*

15:12 A. Pignalberi *The ionospheric equivalent slab thickness: a parameter useful for Space Weather applications*

15:24 G. D'Angelo *Investigation of the physical processes involved in GNSS amplitude scintillations at high latitude: a case study*

15:36 I. Coco *TROPOMAG: Influence of geomagnetic storms on the TROPOsphere dynamics: Can the Earth's MAGnetic field be considered a proxy of climate changes? (remoto)*

15:48 T. Chatzistergos *Irradiance reconstruction from Ca II K observations (remoto)*

16:00 M. Murabito *Penumbra brightening events in a sunspot penumbra*

16:12 N. Plutino *Signal processing for the automatic detection of flare events in the Soft-X GOES signal in the period 1986-2020*

16:24 L. Marcelli *In-flight operations and performance of the Mini-EUSO telescope on board the ISS*

16:36 R. Tozzi *Latitudinal dependence of geomagnetically induced currents during geomagnetic storms*

16:48 C. Plainaki *Planetary Space Weather within the Jovian system: the Ganymede case*

17:00 R. D'Amicis *Alfvénic turbulence in the solar wind as a driver of the geomagnetic response (remoto)*

17:12 *Conclusione lavori seconda giornata*

Venerdì 11 Febbraio 2022

08:30 – 09:00 *Accoglienza*

9:00 – 10:48 *Comunicazioni* (Presiede: R. Tozzi)

9:00 A. Del Corpo *The changing magnetospheric ion composition during the active period 14 February-10 March 2014*

9:12 P. De Michelis *Ionospheric turbulence: impact on the Global Navigation Satellite Systems functioning*

9:24 A. Sotgiu *An Overview on the CSES-LIMADOU missions and their contribution in the Space Weather framework*

9:36 M. Stumpo *An ensemble-based estimator of the transfer entropy for unveiling the magnetosphere-ionosphere coupling during activity periods*

9:48: M. Piersanti *On the source of the anomalous June 23, 2020 Pc5 waves detected at both ground and satellite data*

10:00 F. Ferrente *Polarization signatures during the X1.6 flare observed in NOAA 12192* (remoto)

10:12 F. Berrilli *Flare Forecasting Algorithms Based on Polarity Inversion Lines in Active Regions: the new topological parameter D*

10:24 G. Viavattene *Analysis of Pseudo-Lyapunov Exponents of Solar Convection Using State-of-the-Art Observations*

10:36 P. Pagano *The St Andrews Space Weather Active Region Monitoring technique* (remoto)

10:48 – 11:04 *Intervallo*

11:00 *Chiusura votazioni*

11:04 – 12:28 *Comunicazioni* (Presiede: C. Plainaki)

11:04 R. Biondo *Tracing interplanetary CME plasma with a MHD simulation from 0.1 to 1 AU*

11:16 M. Casolino *Mini-EUSO telescope on board the International Space Station: first results*

11:28 L. Giovannelli *Sun CubE OnE: A Multi-wavelength Synoptic Solar Micro Satellite*

11:40 R. Crapolichio *Inter-comparison of satellite derived L-band solar flux from ESA's earth explorer Soil Moisture Ocean Salinity (SMOS) mission and on-ground radio telescope observations*

11:52 S. Sommariva *Study of the impact of cosmic radiation on the astronauts' central nervous system based on the ALTEA program*

12:04 F. Giannattasio *Parallel electrical conductivity in the topside ionosphere* (remoto)

12:16 N. Tomassetti *Data driven analysis of Galactic cosmic rays in the heliosphere: diffusion of cosmic protons and nuclei*

12:28 F. M. Marcucci *Cross Polar Cap Potential evolution during the geomagnetic storm of 25 August 2018*

12:40 -14:00 *Assemblea Generale – Seconda Parte – Risultati Elettorali*

Chiusura Congresso