Virtual Conference on
Applications of Statistical Methods and Machine Learning in the Space Sciences

17 – 21 May 2021

hosted by
Space Science Institute, Boulder, Colorado

E-POSTERS: SCHEDULE

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Monday 17 May 2021 5:10 - 5:40 PM (10:10PM 11:10PM 12:10PM 7:10AM 6:10AM 2:10PM)[1]

1   5:10 PM **Yasser Abduallah**, New Jersey Institute of Technology, Newark, New Jersey, USA
Deep Learning-Based Reconstruction of Solar Irradiance

8   5:16 PM **Laura A. Balmaceda**, George Mason University, Fairfax, Virginia, USA
Probabilistic cross-matching of CME catalogs

19   5:22 PM **Luke Bowden**, Cornell University and the SULI program at SLAC, USA
Cosmological Evolution of the Formation Rate of Short Gamma-ray Bursts With and Without Extended Emission

31   5:28 PM **Luisa Capannolo**, Boston University, USA
Deep Learning Techniques to Identify the Drivers of Relativistic Electron Precipitation

37   5:34 PM **Yaxue Dong**, Laboratory for Atmospheric and Space Physics, University of Colorado, Boulder, Colorado, USA
Identifying Fundamental Drivers of Martian Ion Escape Using an Artificial Neural Network Model

Tuesday 18 May 2021 5:10 - 5:30 PM (10:10PM 11:10PM 12:10PM 7:10AM 6:10AM 2:10PM)

38   5:10 PM **Luiz Fernando Guedes dos Santos**, NASA GSFC/CUA
How flux rope signatures are impacted by magnetic field fluctuations? A machine learning approach

39   5:16 PM **James "Andy" Edmond**, graduate student at University of New Hampshire, USA
Magnetospheric Plasma Region Classification From THEMIS Data Using Machine Learning

42   5:22 PM **Divyam Goel**, University of California Berkeley, USA
Exploring the effects of geomagnetic storms in the ionosphere using Principal Component Analysis

Wednesday 19 May 2021 2:40 - 3:10 PM (7:40PM 8:40PM 9:40PM 4:40AM 3:40AM 11:40AM)

82   2:40 PM **Gouri Ramesh**; Cranfield University, UK
Digital Fault Simulation and Identification in an Electric Braking System

88   2:46 PM **Anastasia Marie Seifert**, Institute of Space Sciences and Astronomy, Malta
Mask R-CNN based FRB Detection in Noisy Environments

95   2:52 PM **Sujitra Sutthithatip**, Cranfield University, UK
The current stage of AI in aerospace applications

98   2:58 PM **Ajay K Tiwari**, Centrum Wiskunde and Informatica, Amsterdam
Predicting arrival time for CMEs: Machine learning and ensemble methods

100   3:04 PM **Thorold Tronrud**, Universidad Andres Bello, in Santiago, Chile
Machine Learning for Galactic Archaeology

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[1]The times within brackets are UK, CEST, EEST, Australia, Japan, Pacific. The numbers on the left indicate the abstract numbers given in the Abstract booklet.

Thursday 20 May 2021 1:30 - 2:00 PM(6:30PM 7:30PM 8:30PM 3:30AM 2:30AM 10:30AM)

13 1:30 PM **Shreya Bhattacharya**, Royal Observatory of Belgium, Belgium
Quality Assessment of Sunspot data using various catalogs

15 1:36 PM **Téo Bloch**, University of Reading, UK
Deep-Ensemble Modelling of Electron Flux at the Radiation Belt's Outer Boundary With Bayesian Neural Networks

23 1:42 PM **Elena Garcia Broock**, Instituto Astrofisica de Canarias, La Laguna, Tenerife, Spain
Performance of solar far-side active regions neural detection

24 1:48 PM **Giovanni Bruno**, INAF - Catania Astrophysical Observatory, Italy
Filtering stellar activity out from exoplanet observations with Gaussian processe

25 1:54 PM **Andrea Bulgarelli**, INAF/OAS Bologna, Italy
The AGILE on-ground event filtering

Thursday 20 May 2021 4:50 - 5:20 PM (9:50PM 10:50PM 11:50PM 6:50AM 5:50AM 1:50PM)

43 4:50 PM **Jeremy Grajeda**, Klipsch School of Electrical & Computer Engineering, New Mexico State University, USA
Exploring Stability of Coronal Hole Detection to Intensity, Spatial Resolution, and Short Timescales

49 4:56 PM **Sheng Huang**, Boston University, USA
Hiss in the Plasmasphere and Plumes: Global Distribution From Machine Learning Technique and Their Effects on Global Loss of Energetic Electrons

55 5:02 PM **Sudha Kapali**, Computational Physics Inc., Massachusetts, USA
Data Validation Framework for Scientific Instruments: A platform for positive feedback between scientific expertise and machine-learning based validation

61 5:08 PM **Thurmon Lockhart** - School of Biological and Health Systems Engineering, Arizona State University, USA
Dynamic Stability of Exoplanetary Systems using the Largest Lyapunov Exponent

92 5:14 PM **Zena Stevenson**, Klipsch School of Electrical & Computer Engineering, New Mexico State University, USA
Using Fully Convolutional Neural Networks to Infer Solar Magnetic Structure from Extreme Ultraviolet Image

Friday 21 May 2021 2:10 - 2:40 PM(7:10PM 8:10PM 9:10PM 4:10AM 3:10AM 11:10AM)

40 2:10 PM **Haroun El Mir**, Cranfield University, UK
Certification Approach for Physics Informed Machine Learning and its Application in Landing Gear Life Assessment

52 2:16 PM **Maria Elena Innocenti**, Ruhr-Universitaet Bochum, Germany
Unsupervised classification of simulated magnetospheric regions

62 2:22 PM **Luning Li**, School of Aerospace Transport and Manufacturing, Cranfield University, UK
Digital Twin in Aerospace Industry: The Concept, Applications and Challenges

70 2:28 PM **Jorge H. Namour**, Facultad de Ciencias Exactas y Tecnologa (FACET), Universidad Nacional de Tucumán (UNT), Argentina
Ionosphere F2 critical frequency forecasting using deep learning

79 2:34 PM **Mariano Poisson**, Instituto de Astronomia y fisica del Espacio (IAFE), Argentina
Modeling the photospheric magnetic field distribution of emerging solar active regions