

## **Advances in machine learning and data analysis methods for solar, solar wind, and space weather applications with an emphasis on physical insight from large and complex datasets Schedule**

### **Talks**

#### **Wednesday 16h15-17h45**

16h18: Advancing Solar Cycle Forecasting with Novel Physics-Informed and Peak-Aware Transformer Models (Sherwin D Souza)

16h32: Characterising Pre-Eruptive Magnetic Conditions in the Lower Solar Atmosphere with ES-MAGNAR (Marianna Korsos)

16h46: Forecasting of Photospheric Magnetograms using deep learning with Farside seismic priors (Hemapriya Raju)

17h07: A machine learning framework for joint Hanle–Zeeman spectropolarimetric inversions (Ryan Campbell)

17h14: Predicting Solar Flares with a Magnetic Topology ML Model (Thomas Williams)

17h28: Constraining CME model parameters with data assimilation heliospheric imager observations (Matthew Lang)

### **Posters**

- Connecting hybrid plasma simulations of collisionless shockwaves to in situ observations with machine learning (Imogen Gingell)
- Turbulence and Intermittency within Interplanetary Coronal Mass Ejections (Himani Mehta)