Abigail
Mthethwa
University of Johannesburg/SANSA
Oral
(Student Speaker)
Solar flares are powerful phenomena with significant implications for space weather. Understanding their characteristics and predicting their behavior is crucial for mitigating potential risks and ensuring the safety of space-based operations. This research project aims to investigate whether ultraviolet (UV) measurements obtained from the Geostationary Operational Environmental Satellite (GOES) can be used to predict the X-ray properties of solar flares. By analyzing high-cadence UV solar spectral irradiance data from the GOES Extreme Ultraviolet and X-ray Sensors (EXIS) instrument, the study seeks to establish a reliable relationship between UV observations and X-ray flare behavior. The ultimate goal is to develop a model that enables real-time prediction and interpretation of solar flares, empowering space weather forecasters to make accurate forecasts and take necessary precautions.
Presentation file
6-monday-mthethwa-abigail...pdf
YouTube link
View recording
Meeting homepage
4th Eddy Cross-Disciplinary Symposium
Download to PDF