

# InRaSS Colloquium Series

1<sup>st</sup> Talk (20<sup>th</sup> July, 2023 18:00 – 19:00 IST)



**Webinar on:**

**Solar Magnetic Fields and Explosive Solar Events: Can they Impact Our Technologically Dependent Life?**

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Mankind's future in the 21st century is coupled inextricably to satellite systems which modulate all facets of human life from trade and commerce to transport, navigation, communication, science, education, medicine, warfare, and global peace. The strong link between solar activity [flares, coronal mass ejections (CMEs), changing solar magnetic fields] and conditions in near-earth space, and the terrestrial magnetosphere, which can adversely affect communication, terrestrial power grids or even destroy satellite systems, is therefore vitally important. Understanding and eventually being able to predict these events is crucial as it would enable protecting our satellite systems, our very future as a modern race, and also in understanding the ionosphere, radio communication and non-anthropogenic climate effects associated with global cooling, and unusual weather patterns. A deep understanding of the physics driving solar explosive events, using the best available technology is the key to mitigating this clear and present danger to our way of life.

In this talk I will present our observations using around four decades of solar magnetic field data, radio observations of solar wind micro-turbulence levels, and our data driven modelling of the Terrestrial Magnetosphere that together gives us valuable insights into many of these issues.

**Organised by:** Indian Radio Science Society  
(InRaSS)



**Webinar Link:** <https://www.youtube.com/watch?v=6WJZqhjyflc>