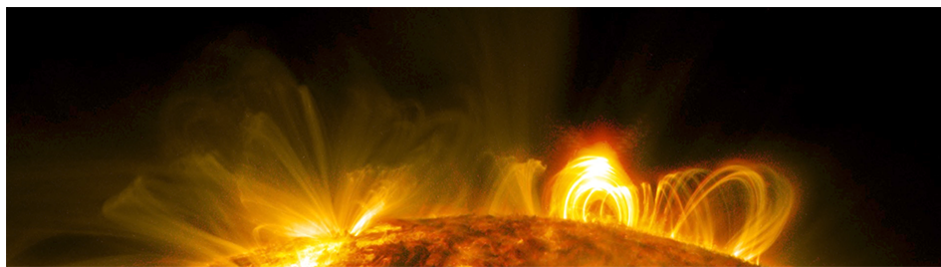


Particle Acceleration in Solar Flares and the Plasma Universe – Deciphering its features under magnetic reconnection



Contribution ID: 47

Type: **Invited talk**

Spectroscopic observations and modeling of solar flares

Tuesday, 16 November 2021 12:30 (30 minutes)

Recent spectroscopic instruments such as Hinode/EIS and IRIS have enabled significant advancements in our understanding of some of the physical mechanisms at play during the impulsive phase of flares, including details of how the non-thermal energy is released and propagated from the corona to the low-atmosphere through accelerated particles. At the same time, the new discoveries have brought to light new unsolved questions and challenges for current models. This talk will provide some examples of the unique contributions to our understanding of flares from these instruments and in particular how state-of-the-art heating models of flares can be constrained by their rich spectral diagnostics. I will also discuss the path forward to solve some of the outstanding problems in preparation for the next generation of solar mission concepts such as PhoENiX.

Primary author: POLITO, Vanessa (LMSAL/BAERI)

Presenter: POLITO, Vanessa (LMSAL/BAERI)

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