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Parallel sessions

Sessions

Session title Energetic particles at the Sun and in the heliosphere

Abbreviation Solar Particles

Description The Sun is the most prolific accelerator of particles in our solar system. Non-thermal energetic particles are crucial for fast energy transport in the active solar corona. Furthermore, energetic particles are responsible for fast energy transfer in the interplanetary space, making them an essential component of space weather. The last two decades have seen substantial progress in understanding the physics of solar energetic particles, particularly due to remote observations in the hard X-ray and radio domains. In the next few years, Parker Solar Probe and Solar Orbiter space missions will perform unprecedented observations of energetic particles, including in situ observations very close to the Sun (at 10 solar radii). This new data will provide a unique insight into the physics of non-thermal plasma at the Sun and interplanetary space, particularly the upper corona and inner heliosphere.

With the first data from Solar Orbiter and Parker Solar Probe available, it would be very timely to discuss outstanding questions in solar energetic particle research, with the focus on these two new missions.

Schedule:

16:00 Natasha Jeffrey "Constraining energetic electron acceleration and transport in solar flares"



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(Invited)

16:18 Eoin Carley "Observations of shock propagation through turbulent plasma in the solar corona" (Invited)

16:36 Daniel Clarkson "First Imaging Spectroscopy Observations of Solar Radio Spikes"

16:45 Clara Maguire "LOFAR Observations of a Jet-driven Piston Shock in the Low Solar Corona"

16:54 David Long "Localised acceleration of energetic particles by a weak shock in the solar corona"

17:03 Charlotte Waterfall "Simulating the transport of high energy solar protons during historic GLE events"

17:12 Camille Yasmina Lorfing "How solar accelerated electron beams vary as a function of distance from the Sun"

17:21 Valentina Zharkova "Kinetic turbulence in reconnecting current sheets with magnetic islands"

Organiser(s) Mykola Gordovskyy, Hamish Reid

Schedule Tuesday late afternoon

Location

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