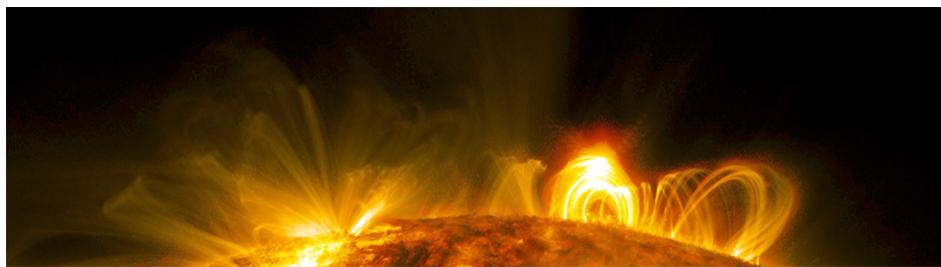


Particle Acceleration in Solar Flares and the Plasma Universe – Deciphering its features under magnetic reconnection



Contribution ID: 61

Type: **Invited talk**

New, focused views of the high energy Sun

Thursday, 18 November 2021 10:45 (30 minutes)

In the past decade, the capability to focus hard X-rays from the Sun has become a reality. Though no solar-dedicated space observatory yet exists, glimpses of the Sun at hard and soft X-ray energies from the FOXSI sounding rocket and the NuSTAR spacecraft have opened windows to show us what can be explored. Most notably, these missions have investigated solar flares down to far smaller scales than could be explored with previous, indirect hard X-ray instruments, observing fluxes fainter than RHESSI microflares by multiple orders of magnitude. These studies evaluate the ability of small flares to act as powerful particle accelerators and explore how energy release scales with flare magnitude. An upcoming sounding rocket flight will apply this method to a large flare for the first time, and will demonstrate the type of measurements that can regularly be performed once a dedicated spaceborne platform is realized.

Primary author: GLESENER, Lindsay (University of Minnesota)

Co-author: THE FOXSI SOUNDING ROCKET EXPERIMENT AND THE NUSTAR HELIOPHYSICS TEAM

Presenter: GLESENER, Lindsay (University of Minnesota)

Session Classification: Day 4 / Session 2