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Type: **Highlight talk**

An Investigation of the Causes of Solar-Cycle Variations in SEP Fluences and Composition

Saturday, August 1, 2015 6:00 PM (30 minutes)

Measurements with ACE, STEREO, and GOES show that the number of large solar energetic particle (SEP) events in solar cycle 24 is reduced by a factor of ~2 compared to this point of cycle 23, while the fluences of >10 MeV/nuc ions from H to Fe are reduced by factors ranging from ~4 to ~10. We investigate the origin of these cycle-to-cycle differences by evaluating possible factors that include: 1) the properties of the associated CMEs; 2) seed particle densities; 3) the interplanetary magnetic field strength; 4) interplanetary turbulence levels; 5) the relative contribution of particles in the energetic storm particle (ESP) portion of the SEP events. These properties will be evaluated in the context of existing SEP acceleration models.

Collaboration

– not specified –

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376

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