



Contribution ID: 86

Type: Oral Presentation

## Solar energetic particles and their transport to Earth

Wednesday, 6 July 2016 11:30 (20 minutes)

**Abstract content** &nbsp; (Max 300 words) <a href="http://events.saip.org.za/getFile.py/?target=\_blank">Formatting & Special chars</a>

Solar energetic particles (SEPs) are highly relativistic, non-thermal particles, accelerated in/near the solar corona during transient solar events. The acceleration processes include acceleration via magnetic reconnection during solar flares and via diffusive shock acceleration during coronal mass ejections. After being accelerated, the SEPs propagate towards Earth and may pose a radiation hazard. We investigate the transport of these ionized SEPs, from the Sun to the Earth, in the turbulent heliospheric plasma. After discussion of the relevant transport processes, we show simulations of SEP transport and compare these, at least in a qualitative fashion, to recent spacecraft observations.

**Apply to be considered for a student award (Yes / No)?**

No

**Level for award (Hons, MSc, PhD, N/A)?**

N/A

**Would you like to submit a short paper for the Conference Proceedings (Yes / No)?**

Yes

**Please indicate whether this abstract may be published online (Yes / No)**

Yes

**Primary author:** Dr STRAUSS, Du Toit (Centre for Space Research, North-West University)

**Co-author:** Dr OGUNJOBI, Olakunle (NWU)

**Presenter:** Dr STRAUSS, Du Toit (Centre for Space Research, North-West University)

**Session Classification:** Space Science

**Track Classification:** Track D2 - Space Science