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## Solar energetic particles and their transport to Earth

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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 the relevant transport processes, we show simulations of SEP transport and compare these, at least in a qualitative fashion, to recent spacecraft observations.

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