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## April 3, 2022 in-situ ESP event as observed by Solar Orbiter, ACE and Stereo

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The propagation and radial evolution of energetic particle events can only be studied by multiple-point simultaneous in-situ measurement within the heliosphere. The joint ESA/NASA Solar Orbiter mission that was launched in February 2020, is designed to study the Sun and inner heliosphere in greater detail than ever before. The Energetic Particle Detector (EPD) investigation on Solar Orbiter is a suite of four different sensors that measure the energetic particles from slightly above solar wind energies to hundreds of MeV/nucleon. Since launched, EPD already observed numerous large solar energetic particle (SEP) and energetic storm particle (ESP) events inside of 1 au in greater temporal and spectral resolutions than ever before. Many of these events were also measured by spacecraft at 1 au such as ACE and/or STEREO.

On April 2, 2022, an active region (AR 12975) on the western limb (W80) of the Sun produced a large SEP event and associated fast moving ( $>1400$  km/s) coronal mass ejection (CME) and a CME-driven interplanetary shock ( $\sim 1900$  km/s). During that time, the Solar Orbiter spacecraft was cruising near its perihelion distance ( $\sim 0.35$  au) at W109 relative to the Earth-Sun line, and the STEREO Ahead spacecraft was at E35. Together, the particle instruments on these probes measured the SEP/ESP and the plasma and field instruments detected the associated interplanetary shock/CMEs on April 2-3, 2022. In this paper, we report the multi-spacecraft observations of this event that were measured by Solar Orbiter, and we discuss the propagation and transport of SEPs from 0.3 to 1 au.