Robert
Allen
Johns Hopkins University Applied Physics Lab
Glenn Mason, Johns Hopkins University Applied Physics Lab
George Ho, Johns Hopkins University Applied Physics Lab
Javier Rodríguez-Pacheco, Universidad de Alcalá
Robert Wimmer-Schweingruber, Christian-Albrechts-Universität zu Kiel
Lars Berger, Christian-Albrechts-Universität zu Kiel
Ignacio Cernuda, Universidad de Alcalá
Francisco Espinosa Lara, Universidad de Alcalá
Johan Freiherr von Forstner, Christian-Albrechts-Universität zu Kiel
Raúl Gómez Herrero, Universidad de Alcalá
Poster
The modern Heliophysics System Observatory (HSO) allows for comprehensive measurements of the suprathermal ion content associated with a given Corotating Interaction Region (CIR) at different heliographic radial distances. In this study, we compare observations at both Solar Orbiter and ACE to investigate the radial dependence of CIR-associated suprathermal ion intensities and spectra. These radial profiles are compared to observations from Helios and IMP 8 from Van Hollebeke et al. (1978). Additionally, we compare the recent CIR-associated suprathermal ion spectra in the current solar minimum to that observed during the last solar minimum. The Solar Orbiter and ACE observations reveal a radial profile of CIR-associated suprathermal ion intensities that is remarkably consistent with that reported by Van Hollebeke et al. (1978), however, the suprathermal ion intensities are much weaker than those seen in the previous solar cycle. Future observations utilizing the HSO will continue to deepen our understanding of these variations in solar wind populations and their origins.
Download to PDF