STEREO Observations of Solar Energetic Particles

von Rosenvinge, Tycho⁰, Christian, Eric⁰, Cummings, Alan¹, Cohen, Christina¹, Leske, Richard¹; Mewaldt, Richard¹, Stone, Edward¹ and Wiedenbeck, Mark²

⁰NASA/Goddard Space Flight Center, Greenbelt, MD 20771 USA

¹California Institute of Technology, Pasadena, CA 91125 USA

²Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109 USA

We report on observations of Solar Energetic Particle (SEP) events as observed by instruments on the STEREO Ahead and Behind spacecraft and on the ACE spacecraft. We will show observations of an electron event observed by the STEREO Ahead spacecraft on June 12, 2010 located at W74 essentially simultaneously with electrons seen at STEREO Behind at E70. Some similar events observed by Helios were ascribed to fast electron propagation in longitude close to the sun. We will look for independent verification of this possibility. We will also show observations of what appears to be a single proton event with very similar time-history profiles at both of the STEREO spacecraft at a similar wide separation. This is unexpected. We will attempt to understand all of these events in terms of corresponding CME and radio burst observations.