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Wave-particle correlation measurements on the Parker Solar Probe mission. STUART BALE, University of California, Berkeley, PSP/FIELDS TEAM, PSP/SWEAP TEAM — The Parker Solar Probe (PSP) mission will launch in July 2018 and eventually orbit with perihelion at 9.8 solar radii, deep into the solar corona. The FIELDS and SWEAP instruments on PSP will measure in situ electric and magnetic fields and thermal plasmas, respectively. A hardware interface between the FIELDS and SWEAP instruments will allow FIELDS to measure directly individual particle counts from the SWEAP electrostatic analyzer instruments. The FIELDS Time Domain Sampler (TDS) has a channel dedicated to particle counts and sampled simultaneously with electric and/or magnetic field measurements. In this talk, I'll describe the instrument design and show some laboratory test data, and discuss the science that we hope address with the PSP wave- particle correlation measurements.

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