

Energetic Particles at Voyager: the Heliosheath, Heliopause and Beyond.

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There now is a consensus that on August 25, 2012, Voyager 1 crossed the heliopause into the interstellar medium, marking a major milestone in our study of space. The observations of energetic particles (termination shock particles, anomalous cosmic rays and galactic cosmic rays) revealed both new and previously expected phenomena. The anomalous cosmic rays vanished as the heliopause was crossed and the galactic cosmic rays increased to their highest values and became very nearly constant, as expected. But the boundary was much more sudden than predicted. The energetic-particle observations will be discussed in the context of Voyager plasma and magnetic-field observations. Possible models and interpretations will be presented.