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Determining the Velocity-Space Signatures of Magnetic Pumping Using the Field-Particle Correlation Technique PETER MONTAG, GREGORY HOWES, University of Iowa, PLASMA THEORY AND COMPUTATION GROUP TEAM — The mechanisms of particle energization are crucial to understanding space and astrophysical plasmas. However, because of the limited data available in in-situ measurements (often at only a single point in space), determining which process underlies the observed particle energization can difficult. Recent work has shown that correlations between the electric field and the plasma distribution function show distinct signatures for different mechanisms of particle energization. We extend this technique to consider magnetic field correlations, with the particular application of magnetic pumping models proposed to explain energization in the solar wind.

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