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Field-Particle Correlation Signatures of Magnetic Pumping¹ PE-

TER MONTAG, University of Iowa — The mechanisms of particle energization are crucial to understanding space and astrophysical plasmas. Previous work has shown correlations between the electric and magnetic fields and the plasma distribution function show distinct signatures for different mechanisms of particle energization. We show that a model of magnetic pumping which has been proposed as an energization mechanism in the solar wind predicts a distinctive correlation signature. We then test this prediction against data from magnetic pumping simulations.

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