

Abstract Submitted  
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**A Kinetically Driven Magnetic Reconnection Laboratory Experiment** TIMOTHY THARP, Marquette University — A novel experiment is proposed to investigate magnetic reconnection in a laboratory plasma. Rather than quickly ramping currents through wires to induce magnetic reconnection, we will rapidly move a permanent magnet through a steady-state plasma in a configuration analogous to the astrophysical system of the Earth encountering the solar wind. The proposed experiments are capable of investigating the energy dissipated by magnetic reconnection as plasma parameters are varied, and may provide significant new insights into the role of boundary conditions in magnetic reconnection.

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