

Abstract Submitted  
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**Microparticle Deflection in a Plasmas as a Result of a Strong Magnetic Field**<sup>1</sup> BRIAN LYNCH, UWE KONOPKA, DYLAN FUNK, EDWARD THOMAS, Auburn Univ — In recent years the influence of a high magnetic field on the physics of complex plasma has been a topic of great interest. In particular, the dynamics may be significantly modified by the presence of large external magnetic fields. In a recent experiment using the Magnetized Dusty Plasma Experiment, the  $\mathbf{g} \times \mathbf{B}$  deflection of charged dust grains falling through the bulk region of a magnetized plasma was observed. Using the deflection angle of the dust grains, it is possible to derive the particle charge. It is found that the charge on the grains is significantly lower than the estimates obtained from the OML model. This presentation will describe the experiments, the determination of the particle charge, and will discuss possible mechanisms that may be responsible for reducing the particle charge in a magnetized plasma.

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