

Abstract Submitted
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Current Research Activities in the Magnetized Plasma Research Laboratory¹ EDWARD THOMAS, Auburn University, MAGNETIZED PLASMA RESEARCH LABORATORY TEAM — The Magnetized Plasma Research Laboratory at Auburn University explores a wide range of low temperature plasma phenomena in plasmas and complex/dusty plasmas. The centerpiece of the laboratory is the Magnetized Dusty Plasma Experiment (MDPX) device - a highly flexible, high magnetic field (up to 4 T) research instrument with a mission to serve as an open access, multi-user facility for the dusty plasma, basic plasma, and fusion plasma research communities. Other instruments include the ALEXIS magnetized linear plasma device and a wide variety of “tabletop” scale devices. In the last year, we have performed a variety of new studies of particle growth at high magnetic field, pattern formation in both the background plasma and the dusty plasma at high magnetic field, and the impact of charged dust on the propagation of driven low frequency, electrostatic fluctuations in magnetized plasma. This presentation will summarize results from these studies.

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Edward Thomas
Auburn University

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