

Abstract Submitted
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Analysis of Dust Acoustic / Dust Density Waves in Magnetized Plasmas¹ W. L. A. BURDETT, E THOMAS, Auburn University — The dust acoustic / dust density wave is a well-documented phenomenon that is a commonly occurring feature in many complex/dusty plasmas. Recent studies have shown that in the presence of a magnetic field, the observed waves can become modified, often times losing their semblances of uniformity due to changes in the background plasma or the overall stability of the dusty plasma cloud. This presentation reports on recent experimental studies of dust acoustic/dust density waves performed using the Auburn University Magnetized Dusty Plasma Experiment (MDPX). Changes in the spatial characteristics of the dust waves are investigated under varying magnetic field strengths up to 2 Tesla. Additionally, measurements of the evolution of the wave dispersion relation as a function of the magnetic field will be discussed.

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Edward Thomas
Auburn University

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