Abstract Submitted
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**Analysis of waves at a dust cloud - plasma interface**[1] E. THOMAS, J. SHAW, Auburn University, M. CHAUDHURI, U. KONOPKA, H. THOMAS, Max Planck Institute for Extraterrestrial Physics, PK-3 PLUS TEAM — For the last two decades, detailed measurements have been made of a wide variety of complex plasma waves - from compressional dust density waves to transverse dust lattice waves. However, the dynamics of these waves as they interact with the dust - plasma boundary layer is complex and many questions related to the dissipation of waves at the surface remain. This presentation reports on an analysis of microgravity and ground-based studies of waves at the dust cloud boundary layer. Particle image velocimetry measurement techniques are used to construct velocity and frequency maps of particle motion throughout the cloud and at the surface. The analysis suggests that the source of the waves is near the center of the cloud – most likely, the void boundary.

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