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Coupling and decoupling of the dust acoustic wave¹ STEVEN LA COUNT, JEREMIAH WILLIAMS, Wittenberg University — A dusty plasma consists of ions, electrons, neutral particles and charged microparticles. These charged microparticles result in new collective modes, such as the dust acoustic wave. In this work, the Hilbert Transform is applied to high speed video imaging to examine the transition between the driven and naturally-occurring dust acoustic wave mode in a weakly-coupled, argon dc glow plasma.

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