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Ferromagnetic and non-ferromagnetic dust interactions in complex plasmas MATTHEW BENESH, CASPER, Baylor University, JORGE CARMONA-REYES, CASPER, Baylor Unviersity — A GEC rf reference cell is used to create groupings of 4.5 micron melamine formaldehyde dust particles and also of 4.5 micron ferromagnetic dust particles. It is shown that ferromagnetic dust particles respond to variations in chamber pressure in a similar fashion to non-ferromagnetic dust. It is also found that non-ferromagnetic dust particles exhibit more short-range ordering and structure than ferromagnetic dust particles for the range of pressures and powers tested.

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