

Abstract Submitted  
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**Experiments on interacting dust molecules in complex plasma**

A.C. HERRICK, T.E. SHERIDAN, Physics and Astronomy, Ohio Northern University — A dusty plasma consists of an ionized gas with dust particles suspended in it. Dust molecules form when two microspheres are bound together vertically due to the wake potential. A two-dimensional configuration of two such dust molecules was created in the D.O.N.U.T. (Dusty Ohio Northern University experiment). Experiments were done to determine how the forces acting on these molecules depends on the plasma density. Information about these forces was inferred through observations of particle spacing and thermal fluctuations as rf power was increased.

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