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Measurement of Interbundle/Interstring Forces in Vertically Aligned Dust Particle Systems TRUELL HYDE, JIE KONG, OLEG PETROV, BO ZHANG, LORIN MATTHEWS, CASPER - Baylor University — Particle-particle, cluster-cluster and string-string interactions have long been of interest across a variety of scientific research disciplines. Complex plasmas have proven to be a versatile analog for studying such systems, often providing a mechanism for determining the fundamental physics behind the strong correlation effects observed. In this talk, the interaction between two, two-particle vertically aligned strings, two, three-particle vertically aligned strings and two vertically aligned dust particle clusters is examined experimentally. The energy storage held within the Coulomb field between particles will be discussed using data collected employing a technique using externally assigned potentials on the walls of an Indium Tin Oxide (ITO) box.

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