

Abstract Submitted
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Orbiting Dust Particles in a Potential Sheath KATHLEEN HILL,
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aperture with a center post placed in a strongly-coupled complex plasma will gen-
erate a ring shaped potential. A dusty plasma ring is formed inside the confining
potential well. A single dust particle that orbits around the ring is occasionally
observed during the initial setup. Various parameters for the orbiting particle in-
cluding the velocity, period, and mass can be calculated. Drag forces acting on the
orbiting particle are discussed. A driving force allowing the particle to continuously
orbit in the potential well is postulated.

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