

Abstract Submitted
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Interaction between two dust grains immersed in plasma MARTIN LAMPE, GLENN JOYCE, Unaffiliated — We have used a 2-D PIC simulation code in cylindrical (r-z) geometry to calculate self-consistently the charge on each of two dust grains immersed in plasma, and the complete plasma-mediated interaction force between the grains. The results differ from the charge and shielded electrostatic potential of a single grain, due to nonlinear response of the plasma to the presence of two nearby grains. The calculation includes charge-exchange collisions, trapped ions, and the attractive shadowing force due to anisotropic momentum-depositing collisions of ions with the grains. The results will be compared with theoretical models.

Martin Lampe
Unaffiliated

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