## Abstract Submitted for the DPP19 Meeting of The American Physical Society

Kinetics effects in a plasma crystal induced by an electron beam¹ JEREMIAH WILLIAMS, Wittenberg University, CATALIN TICOS, DORINA TICOS, ADRIAN SCURTU, National Institute for Laser, Plasma and Radiation Physics, LORI SCOTT, EDWARD THOMAS, Auburn University — The kinetic effects on the dust particles in a plasma crystal locally irradiated by a narrow, pulsed electron beam (EB) with energies from 10–15 keV are presented. In the irradiation zone, the EB pushes the dust particles, leading to both laminar and turbulent flow. Particle image velocimetry is applied to measure the flow characteristics of the dust and strong transversal heating of the dust particles is observed where the EB impacts the plasma crystal. This poster presents experimental measurements and molecular dynamic simulations of the interaction of an EB with a plasma crystal.

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