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Particle-in-Cell Simulations of Laser Plasma Interactions Relevant to Shock Ignitions¹ JOHN TONGE, F.S. TSUNG, M. TZOUFRAS, W.B. MORI, UCLA — We present simulation results on the laser-plasma interaction for density and intensity ranges relevant to shock ignitions. These simulations show the importance of instabilities near the quarter critical surface and the importance of higher dimensional simulations. The saturation mechanism (which is determined by ion dynamics) and the recurrence rate of the instability will also be presented.

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