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Kinetic particle-in-cell modeling of PW laser interaction for HEDLP[1] ANDREAS KEMP, LAURENT DIVOL, BRUCE COHEN, LLNL — We discuss new results on kinetic modeling of Petawatt laser-plasma interaction at relativistic intensities. We study the transition between bulk plasma heating through instabilities near the critical density where the laser is absorbed, and resistive heating in dense plasma. The goal of our effort is to adequately model the absorption layer in full-scale simulations of ongoing HEDLP experiments.

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