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Three-dimensional kinetic open boundary simulation of driven reconnection for TS-3 laboratory plasma merging experiment PATRICK COPINGER, The University of Tokyo, RITOKU HORIUCHI, HIROSHI TANABE, SHIZ INOUE, YASUSHI ONO — Using the PArTicle Simulation of driven Magnetic reconnection for an Open boundary (PASMO) with parameters similar to the University of Tokyo Spherical Torus (TS-3) experiments a fully kinetic electromagnetic simulation is performed. Upstream boundary conditions in the simulation are modeled after electric fields calculated from measured TS-3 magnetic probe data. Ion temperature measurements from 2-D ion Doppler spectroscopy as well as magnetic probe data are compared with the simulation results. Particle acceleration is investigated through calculation of trajectories based on electromagnetic simulation data and a non-thermal distribution.

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