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Transverse instability of electron plasma waves study via direct 2+2D Vlasov simulations DENIS SILANTYEV, PAVEL LUSHNIKOV, The University of New Mexico, HARVEY ROSE, Los Alamos National Laboratory, — Transverse instability can be viewed as initial stage of electron plasma waves (EPWs) filamentation. We performed direct 2+2D Vlasov-Poisson simulations of collisionless plasma to systematically study the growth rates of oblique modes of finite-amplitude EPW depending on its amplitude, wavenumber, angle of the oblique mode wavevector relative to the EPW's wavevector and the configuration of the trapped electrons in the EPW. Simulation results are compared to the predictions of theoretical models.

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