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A comparison of 2D PIC simulations of collisionless magnetic reconnection in sheared and unsheared current sheets

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We will present some results of 2D PIC simulations of magnetic reconnection in sheared and unsheared current sheets. We consider initial states for an anti-parallel configuration and cases with varying magnitudes of constant guide magnetic field and compare these to a simulation starting from a force-free collisionless current sheet. Comparisons of a number of features, especially of the electron pressure tensor, of the reconnection processes in the various cases will be shown.