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Turbulent Stresses in LAPD and CSDX A.D. LIGHT, Y. SECHREST, University of Colorado Boulder, D.A. SCHAFFNER, University of California Los Angeles, S.H. MULLER, University of California San Diego, G.D. ROSSI, D. GUICE, T.A. CARTER, University of California Los Angeles, G.R. TYNAN, University of California San Diego, S. VINCENA, University of California Los Angeles, T. MUNSAT — Turbulent momentum transport can affect phenomena as diverse as intrinsic rotation in self-organized systems, stellar dynamo, astrophysical accretion, and the mechanism of internal transport barriers in fusion devices. Contributions from turbulent fluctuations, in the form of Reynolds and Maxwell stress terms, have been predicted theoretically and observed in toroidal devices. In an effort to gain general insight into the physics, we present new results from turbulent stress measurements on two linear devices: the LArge Plasma Device (LAPD) at the University of California, Los Angeles, and the Controlled Shear De-correlation eXperiment (CSDX) at the University of California, San Diego. Both experiments are well-characterized linear machines in which the plasma beta can be varied. Electrostatic and magnetic fluctuations are measured over a range of plasma parameters in concert with fast imaging. Maxwell and Reynolds stresses are calculated from probe data and fluctuations are compared with fast camera images using velocimetry techniques.

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