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**Dynamics of edge transport bifurcation induced by external biasing** BO LI, XUEYUN WANG, PENGFEI LI, CONG MENG, Peking University — Transport bifurcation and flow generation induced by external biasing at the plasma edge are explored with self-consistent turbulence simulations in a flux-driven system with both closed and open magnetic field lines. With no biasing, the nonlinear evolution of pressure-gradient-driven interchange instabilities produces large-scale turbulent eddies, leading to high levels of convective transport in the edge region. By applying a sufficient biasing at the plasma edge, the turbulent flux abruptly decreases to a much lower level, indicating a strong bifurcation in transport.

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