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Poloidal rotation and its effect on toroidal rotation O.D. GURCAN, P.H. DIAMOND, University of California, San Diego, T.S. HAHM, Princeton Plasma Physics Laboratory — A transport model, which describes the self-consistent evolution of poloidal and toroidal rotation in addition to density and pressure is suggested. The model is self consistent in the sense that Er shear is used for symmetry breaking, but its effect on turbulence is also considered. We also solve the poloidal ion momentum equation together with the radial force balance relation. The full study involves a rigorous gyrokinetic derivation of the model, and numerical solutions of the simple 1-D transport model. Notice that the simplicity of the model allows parameter scans that require many runs. The results of this study will be presented.

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