

Abstract Submitted
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Nonlinear Trapped Electron Mode Pinch in Strong Turbulence Regime¹ DAVID HATCH, P.W. TERRY, University of Wisconsin-Madison — Recent work has shown that there is an inward flux component in collisionless trapped electron mode turbulence produced by a nonlinear cross phase². The result was obtained for a weak turbulence regime, consistent with near threshold conditions. We extend this work to the strong turbulence regime, applying asymptotic analysis to the nonlinear frequency expressions generated from self-consistent statistical closure theory. We first check to see if there is a consistent strong turbulence regime for the previously considered threshold ordering², and examine the properties and scalings of the inward flux components. We then examine other orderings that are further above the instability threshold. The orderings will be compared with experimental profiles to determine likely regimes and nonlinear pinch properties. ²P.W. Terry and R. Gatto, Phys. Plasmas **13**, 062309 (2006).

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