

Abstract Submitted
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Turbulent Parameters during Magnetic Field and Particle Diffusion Fluctuations in the Madison Symmetric Torus¹ J.B. TITUS, E.D. MEZONLIN, J.A. JOHNSON III, K.M. WILLIAMS, C.T. RAYNOR, Florida A&M University — Turbulence physics may be characterized as a Ginzburg-Landau phase transformation with the tools from BCS Theory. Such a characterization predicts anomalous enhancements of transport at critical turbulent energies. The standard turbulent parameters have been studied during the magnetic field fluctuations and the particle and thermal diffusion coefficient fluctuations. We will determine correlations between the associated transport coefficients and the turbulent parameters in search of evidence of turbulence driven heating and diffusion enhancements at MST. We would like to thank the MST group for providing data used in these analyses.

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