

Abstract Submitted
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Measurements of Lower-Hybrid Waves with an Interferometer on the TST-2 Spherical Tokamak N. TSUJII, A. EJIRI, K. IKEUCHI, T. SHINYA, Y. TAKASE, T. WAKATSUKI, S. YAJIMA, H. FURUI, J. HIRATSUKA, K. IMAMURA, T. INADA, H. KAKUDA, K. NAKAMURA, A. NAKANISHI, T. OOSAKO, M. SONEHARA, H. TOGASHI, S. TSUDA, T. YAMAGUCHI, The University of Tokyo, C.P. MOELLER, General Atomics — Development of non-inductive startup scenarios is a critical issue for spherical tokamaks due to limited space at the center of the machine. Among the various methods, the TST-2 group has been focused on startups using rf waves. Recently, an electrostatically coupled combline antenna that launches lower-hybrid waves was installed for the startup experiments. Direct measurements of waves provide valuable information about wave propagation and damping. Interferometer signals are simply the line-integrated electron density, and suited for accurate quantitative studies. Design of a new interferometer to measure small scale fluctuations and a full-wave analysis of lower-hybrid waves for the relevant discharges will be presented. Comparison with the actual measurements will also be shown if available.

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