

Abstract Submitted
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Multi-Point Thomson Scattering Upgrade and Measurements on HBT-EP¹ C.C. STOAFAER, P.J. BYRNE, B.A. DEBONO, J.P. LEVESQUE, M.E. MAUEL, G.A. NAVRATIL, Q. PENG, N. RATH, D. RHODES, Columbia University, H.S. MCLEAN, Lawrence Livermore National Laboratory, S.F. PAUL, Princeton Plasma Physics Laboratory — A recent acquisition of the Thomson Scattering (TS) system from SSPX has allowed for significant upgrades to the TS system at HBT-EP. The equipment allows for ten spatial point measurements, an improvement over the previous single point system. The installation of this new instrumentation will be described. Initial measurements of electron temperature and density will be presented. As one of few internal measurements on HBT-EP, the multipoint system will enhance our equilibrium reconstruction and improve stability analysis of the HBT-EP discharges. We show the additional pressure profile information will allow for a more accurate equilibrium reconstruction of the HBT-EP plasmas for further understanding of the plasma characteristics during resistive wall mode (RWM) activity, and active control experiments.

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