Abstract Submitted
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Multi-Point Thomson Scattering Upgrade and Measurements on HBT-EP[1] C.C. STOAFER, J.P. LEVESQUE, M.E. MAUEL, G.A. NAVRATIL, Columbia University, H.S. MCLEAN, Lawrence Livermore National Laboratory — The Thomson scattering (TS) system from SSPX [1] has been successfully installed on HBT-EP. When fully operational, the TS system will provide ten spatial point measurements and significantly enhance our single point system. We report our first results, using a single spatial point, and measurements of the T_e and n_e evolution through typical HBT-EP discharges. In addition to the SSPX system, we have installed a new viewing dump. As a result, stray light has been reduced by over an order of magnitude, giving a high signal to noise ratio. A new collection lens and fiber bundle system are being manufactured to allow measurement of all ten spatial points. The multipoint system will enhance our equilibrium reconstruction capability, improve stability analysis of the HBT-EP discharges, and allow for further understanding of the plasma characteristics during resistive wall mode (RWM) activity and active control experiments.

[1] H.S. McLean, *et. al.*, Rev. Sci. Instr. **72**, 577, (2001).

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