Abstract Submitted
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Fabrication, Installation and First Results of the HBT-EP Shaping Coil[1] P. BYRNE, J.P. LEVESQUE, D. RHODES, Q. PENG, G.A. NAVRATIL, M.E. MAUEL, Columbia University — A low-mutual-inductance, zero-net-turn coil and its capacitive power supply have been fabricated and installed on the HBT-EP Tokamak. The coil is used to locally shape the HBT-EP circular cross section, up to and including the creation of a poloidal field null above the inboard midplane. This will enable HBT-EP's first investigation of the effects of shaping on the MHD multimode spectrum. Post-installation tests have affirmatively proven the ability of the coil to impose a continuum of shaping, from circular to fully diverted. Results of initial experiments with are also provided and compared with simulations, and show a clear effect of shaping on HBT-EP's MHD mode spectrum.

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