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Category Number and Subject:

Theory Experiment

QH-mode in Low Rotation, ITER-Similar Plasmas Using Static Nonaxisymmetric Magnetic Fields,* A.M. Garofalo, K.H. Burrell, *GA*; J.-K. Park, W.M. Solomon, *PPPL*; M.E. Fenstermacher, M.J. Lanctot, *LLNL* – DIII-D experiments have shown that static 3D magnetic fields can be used to maintain the edge rotation shear required for ELM-stable operation in QH-mode even with zero-net torque from neutral beam injection (NBI). These results have been obtained in ITER-similar shape plasmas with ITER-level collisionality, normalized beta, and confinement quality. New experiments are planned to extend the previous results to conditions closer yet to those of ITER: 3D field application using coils external to the vessel, small $co-I_p$ NBI torque, and low $q_{95} \sim 3$. Results will be discussed.

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