

## Dependence of the low to high confinement mode transition power threshold on injected torque

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**Abstract.** The power required to induce a bifurcation from a low-confinement mode to a high-confinement mode in DIII-D tokamak plasmas is found to depend sensitively on the injected neutral beam torque and consequent toroidal rotation. This power threshold is reduced by a factor of three to four as rotation is varied from the co-current to counter-current direction. Consistent with this effect, 2D measurements of turbulence and shear in the poloidal turbulence velocity near  $0.9 < r/a < 1.0$  show significantly larger flow shear for balanced injection, relative to co-current injection.

This research supported by the U.S. Department of Energy under DE-FG02-89ER53296, DE-FC02-04ER54698, DE-AC02-76CH03073, and DE-FG03-01ER54615. The authors thank the DIII-D program for its support of these experiments and the fluctuation diagnostic development work.