

Reduction in Neutral Beam Driven Current in a Tokamak by Tearing Modes

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Abstract

Profiles of noninductive current driven by neutral beam injection into a tokamak have been measured and compared with theory. The driven current can be less than the theoretical prediction (by up to 80 percent) in the presence of islands driven by tearing modes. The possibility of increasing the plasma current noninductively using neutral beams is severely limited by this effect.

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