

APS Abstract for M.J. Schaffer

Subject Classification Category: Pri. = 5.1.4, Sec. = 5.3
Experiment

Evolution of Helicity Injected Plasmas in NSTX,* M.J. Schaffer, L.L. Lao, *General Atomics*, R. Raman, *University of Washington*, S.M. Kaye, *Princeton Plasma Physics Laboratory* — Since very-low aspect-ratio spherical tori (ST) have a severely limited inductive current drive capability, they can benefit greatly from efficient non-inductive current drive techniques. Coaxial helicity injection (CHI) has been demonstrated in the small HIT ST, and CHI is now being implemented in the much larger NSTX ST at PPPL for plasma startup, current rampup and current sustainment. We modified the EFIT and MFIT magnetic equilibrium reconstruction codes to better fit CHI plasmas. In particular, the toroidal-current-ring code MFIT reconstructs and displays growth and reconnection of the initial open magnetic surfaces into the final closed surfaces. New experimental results will be presented.

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Group with NSTX papers.

I prefer poster, but will go wherever NSTX organizers think this paper fits best.