

Abstract Submitted
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Magnetic topology effects on ion flows¹ ANDREI N. SIMAKOV, Los Alamos National Laboratory, PETER J. CATTO, MIT Plasma Science and Fusion Center — We consider the effect of magnetic topology on the Pfirsch- Schlüter flows inside the separatrix of a tokamak for reversal in the direction of (i) the plasma current or poloidal magnetic field, (ii) the toroidal magnetic field, or (iii) both; and for (iv) a switch between lower and upper X-point operation. We find that the results of the magnetic topology changes on the flows observed in Alcator C-Mod are consistent with the predictions of neoclassical theory when both the up-down symmetric and up-down asymmetric drives for toroidal rotation are retained.

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Andrei N. Simakov
Los Alamos National Laboratory

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