

Direction reversals of intrinsic toroidal rotation have been observed in Alcator C-Mod Ohmic L-mode plasmas following modest electron density or toroidal magnetic field ramps. For low density plasmas, the rotation is in the co-current direction, and can reverse to the counter-current direction following an increase in the electron density above a certain threshold. The density at which the rotation reverses increases linearly with plasma current, and decreases with increasing magnetic field. The reversal occurs in the plasma interior, inside of the $q = 3/2$ surface. Reversals from the co- to counter-current direction are correlated with a sharp decrease in density fluctuations with $k_R > 2 \text{ cm}^{-1}$ and frequencies above 70 kHz.