Recent results of the RFX-mod Reversed Field Pinch

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The experiments recently performed in the Reversed Field Pinch device RFX-mod are presented. The plasma operation regimes have been extended both in the current (0.3 MA ≤ Ip ≤ 1.5MA) and density space (0.1 ≤ ne/n_Greenwald ≤ 0.8). Temperatures above 1 keV have been obtained, with discharge durations as long as ≈ 0.5 s. RFX-mod is a state of the art facility for active control of MHD modes, with a set of 48 (toroidal) x 4 (poloidal) saddle coils, independently driven, which cover the whole plasma surface. The aliasing of the sidebands generated by the discrete saddle coils has been corrected in real time, and new results on RWM stabilization and tearing modes control will be presented. Various enhanced confinement regimes, such as Oscillating Poloidal Current Drive, Quasi Single Helicity states are discussed.

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