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QSH spectra in RFX-mod L. MARRELLI, A. ALFIER, F. BONOMO, A. CRAVOTTA, P. FRANZ, M. GOBBIN, P. MARTIN, R. PASQUALOTTO, P. PIOVESAN, G. SPIZZO, Consorzio RFX - Associazione EURATOM ENEA PAdova, Italy — This paper is dedicated to an overview of recent experimental results on the quasi-single helicity (QSH) spectra in the RFX-mod device, that recently resumed operations. We report, in particular, on the occurrence of QSH states in low plasma current regimes. The results are compared with those obtained in the RFX device (with a thick shell) and in other RFP devices. Comparison of discharges obtained with a different start-up seems to indicate that a ramping start-up favors the onset of a dominant mode. The equilibrium is found to control the dominant helicity. Poloidally localized intermittent SXR structures are found during QSH regimes. These structures are detected by the SXR tomographic diagnostic. The intermittent behavior of the SXR structure can be correlated with the dynamics of the magnetic spectrum as detected by magnetic diagnostics. We will also describe the results of the first experiments on the active control of QSH state making use of the MHD active control system based on 192 independently controlled saddle coils.

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