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Similarities in QSH thermal measures in RFX-mod and MST experiments in high current regimes[1] ALBERTO ALFIER, ALESSANDRO FASSINA, PAOLO FRANZ, Consorzio RFX - Padova, Italy, JOSHUA A. REUSCH, HILLARY STEPHENS, MEGHAN MCGARRY , DANIEL J. DEN HARTOG, JAY K. ANDERSON, University of Wisconsin-Madison — In the two RFP devices, Madison Symmetric Torus (MST) and RFX-mod, experiments have been recently performed at the aim of characterizing and comparing quasi single helicity (QSH) thermal properties. They have been dedicated to study the appearance of helical structures in the core region and to its transient evolution. Shots have been run at an electron density and current in the two devices such that the I/N parameter (I plasma current, N line averaged density) was in the range 3-9*10-14Am. Both spontaneous and induced QSH have been considered. Hot temperature structure, in some cases occupying most of the plasma core, is measured on both devices, corresponding to a more emissive plasma detected through the X-ray tomography. Their occurrence is found to be statistically related to the I/N values. Heat transport analysis in similar cases provides similar heat diffusivity profiles.

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