

Abstract Submitted
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Investigation of electrostatic and magnetic structures at small scale in the edge region of RFX ROBERTO CAVAZZANA, Consorzio RFX, MATTEO AGOSTINI, Dipartimento di Fisica - Universita di Padova, PAOLO SCARIN, GIANLUIGI SERIANNI, Consorzio RFX — A set of three three-axial high frequency magnetic pick-up coils has been recently added to the gas puffing imaging (GPI) diagnostic system installed on RFX. The fluctuations of He-alpha emission from the puffed gas cloud extend in the range above 10 kHz up to several hundred kHz and have been found to be mainly linked to density fluctuations associated to electrostatic structures moving in the plasma edge. The signals collected with the new magnetic probes show a strong correlation of these density fluctuations with magnetic fluctuations in the same frequency range. The spatio-temporal phase and amplitude relation between magnetic and emission signals will be investigated, aimed at identifying the principal instability driving the electrostatic turbulence in the edge RFP region.

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