

Abstract Submitted
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Doppler spectroscopy and collective flows in RFXmod B. ZANIOL, L. CARRARO, E. GAZZA, M.E. PUIATTI, P. SCARIN, M. VALISA, P. ZANCA, Consorzio RFX, Associazione Euratom-ENEA sulla Fusione — Doppler spectroscopy based toroidal and poloidal flow velocities measured on the modified RFX Reversed Field Pinch are compared with the results obtained in the previous machine [1]. Passive measurements with integrated lines of sight confirm the decaying dependence of the toroidal plasma velocity with electron density but show a higher dynamics with respect to the past, often featuring significant accelerations during the plasma discharge. Edge flow, opposite to the core co-current flow, in presence of induced bulges of localized MHD modes or externally induced radial magnetic perturbations reverses its direction: this corresponds to a reversal of the radial electric field. A new diagnostic neutral beam injector (50 kV, 2.5 A equivalent current) has been recently installed for spatially resolved measurements. Preliminary results are presented. Among the main objectives of the system is a detailed measurement of the radius at which the radial electric field reverses and whether such radius coincides with the magnetic field reversal. [1] *L. Carraro et al.* Plasma Phys. Control. Fusion **40** (1998) 1021-1034.

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