

Abstract Submitted  
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**Edge Plasma Structure with Rotating Resonant Magnetic Perturbations at TEXTOR**<sup>1</sup> H. STOSCHUS, Oak Ridge Institute for Science Education, Oak Ridge, Tennessee 37830, USA, O. SCHMITZ, H. FRERICHS, M. LEHNEN, D. REISER, B. UNTERBERG, U. SAMM, Institute of Energy and Climate Research - Plasma Physics, Forschungszentrum Juelich GmbH, Association EURATOM-FZJ, TEXTOR RESEARCH TEAM — Rotating Resonant Magnetic Perturbations impose a characteristic modulation to the electron density and temperature in the TEXTOR plasma edge ( $r/a > 0.9$ ). The modulation matches the position of the magnetic topology modeled in vacuum approximation for low relative rotation of  $f_{rel} = -0.2 kHz$  between RMP field and toroidal plasma rotation. With increasing relative rotation ( $f_{rel} = 1.8 kHz$ ), the plasma structure at the outermost rational flux surface is shifted by  $\pi/2$  in counter- $B_t$  direction due to internal plasma response. The shift is correlated to a smaller displacement of the plasma structure in front of the RMP coils of  $0.1\pi$ . This indicates a competition between the near-field of the RMP coils and the net magnetic field at the rational flux surface.

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