

Abstract Submitted  
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**Trapped electrons and microinstabilities in the reversed-field pinch** I. PREDEBON, S.C. GUO, F. SATTIN, Consorzio RFX, Padova, Italy — We study the role of trapped electrons in the anomalous transport induced by microinstabilities in the Reversed Field Pinch. This investigation is justified by the fraction of trapped particles present in the core, which is almost the same as in the tokamak.<sup>1</sup> This fraction turns out not to have a strong influence on ITG mode frequency/growth rate. Trapped electron modes are revealed especially in correspondence to relatively large density gradients and slight electron temperature slopes. Analytical approaches are carried out with fluid/kinetic ions. Numerical results are obtained with the codes GS2<sup>2</sup> and TRB.<sup>3</sup> Some recent advances on ITG and microtearing mode studies are also summarized.

<sup>1</sup>M. Gobbin *et al.*, J. Plasma Fusion Res. Series **8**, 1147 (2009)

<sup>2</sup>M. Kotschenreuther *et al.*, Comput. Phys. Commun. **88**, 128 (1995); W. Dorland *et al.*, Phys. Rev. Lett., **85**, 5579 (2000)

<sup>3</sup>X. Garbet *et al.*, Phys. Rev. Lett., **91**, 035001 (2003)

Italo Predebon  
Consorzio RFX, Padova, Italy

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