

# **Evaluation of CT injection to RFP for performance improvement and reconnection studies**

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RELAX [1] ( $R/a=0.5\text{m}/0.25\text{m}$ ,  $A=2$ ,  $I_p\sim 100\text{kA}$ ,  $T_e(0)\sim 100\text{eV}$ ,  $n_e\sim 10^{19}\text{m}^{-3}$ ) is a reversed field pinch (RFP) machine whose research objectives include optimization of RFP geometry such as aspect ratio [1]. Some of the characteristic features of the equilibrium configuration have been described in ref. [2-4] in connection with the low-aspect-ratio nature of the machine. Feedback stabilization of a resistive wall mode (RWM) using saddle coils has resulted in improved plasma performance particularly in realizing discharge duration limited by the iron core saturation [5]. It has been found that we need further effort to reduce toroidal loop voltage particularly in the current rise phase for further improvement of the plasma performance. We will discuss the CT injection technique as a possible means for helicity injection to save flux consumption, and for fueling in RELAX.

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