

Abstract Submitted
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Magnetic perturbations at the plasma edge due to Scrape Off Layer currents¹ LEONID ZAKHAROV, LiWFusion — While most of fusion community which considers the temperature pedestal region as a mysterious “Edge Transport Barrier”, the author dismisses this notion and its “explanations”. Instead, the temperature of the pedestal represents the boundary condition determined by the ratio of the total heat flux from a plasma component to the particle flux. One of the straightforward results of this understanding is that the level of the pedestal temperature is unshakable by perturbations of transport properties at the edge, what was confirmed unambiguously by RMP experiments on DIII-D in 2005 and in all following experiments. In the other hand, I consider the width of the pedestal determined by destruction of 2-D magnetic configuration at the plasma edge, and the Scrape Off Layer (SOL) currents considered as a primary source of perturbation. The numerical simulations of their effect are presented.

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