

Abstract Submitted  
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**SOL-dynamics in the TJ-K torsatron** FRANKO GREINER, TIM HAPPEL, IEAP, University Kiel, Germany, NAVID MAHDIZADEH, MIRKO RAMISCH, ULRICH STROTH, IPF, University Stuttgart, Germany — In the dimensionally similar low temperature plasma of torsatron TJ-K, Langmuir probe measurements with high spatio-temporal resolution are possible over the whole plasma cross section [1]. In the region of closed fieldlines (bulk plasma) the dynamic of the plasma is dominated by drift waves. In the scrape off layer (SOL) dynamic is observed to be curvature driven. Inserting a massive poloidal limiter into the device gives the unique opportunity to enlarge the SOL and to study the plasma in detail. Even when the plasma diameter is reduced to half, the drift dynamic in the bulk plasma remain unchanged. The velocity of the drift structures in the bulk plasma is mainly diamagnetic, structures in the SOL are advected by ExB-velocity. The transition from the drift dynamic of the bulk plasma to the curvature driven dynamics in the SOL is investigated by means of cross-correlation and conditional averaging technique. [1] U. Stroth et al, Phys. Plasmas 11, 2558 (2004)

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