

**The influence of electric fields and neutral particles
on the plasma sheath at ITER divertor conditions**

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Pilot-PSI regularly generates the plasma conditions expected in the divertor ('exhaust pipe') of the future nuclear fusion experiment ITER. It was designed for the study of Plasma-Surface Interaction (PSI) processes in this divertor. This seminar will give an overview on my PhD thesis work on the physics of the plasma-surface interface ('the plasma sheath') of Pilot-PSI. The effect of two 'components' of the plasma on the interface will be explored: electric fields and neutral particles. The consequences for ITER will be discussed. Highlights will also be given on the development of non-intrusive, spectroscopic diagnostics for the measurement of electric fields and neutral particles in Pilot-PSI.