

Abstract Submitted
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Generation mechanisms of blobs in tokamak edge plasmas.
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University of Saskatchewan — Meso-scale structures, driven by curvature and gradB
effects, like blobs and ELMs play a very important role in edge and SOL plasma
transport in tokamaks. Once these meso-scale structures formed, they exhibit clear
convective behavior propagating mainly toward the wall at low B-field side of the
torus. The main features of convection mechanisms are relatively well understood.
It is widely believed that generation of ELMs is triggered by peeling-ballooning in-
stability. But, the mechanism (-s) and the rate of blob generation are not clear yet.
Here we present both analytic and modeling results describing the mechanisms of
the blob generation triggered by sub-critical phenomena related to the ballooning
drive.

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