

Abstract Submitted
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**Impact of negative triangularity on turbulent transport in TCV:
From validated simulations to basic understanding** GABRIELE MERLO,
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discharges lie beyond the standard operating regimes but have been experimentally
found to potentially lead to significant improvements in the plasma confinement.
The physical mechanism leading to this improvement and in particular how edge
triangularity, which is rapidly diminishing towards the magnetic axis, can influence
the behaviour of the plasma at all radial positions still remains unclear.
We will discuss global gyrokinetic GENE simulations used to reproduce the transport
level measured in negative triangularity L-mode TCV plasmas. Dedicated synthetic
diagnostic have been successfully used to compare GENE results to experimental
fluctuation measurements. Furthermore, the impact and beneficial effects of $\delta < 0$
in turbulent regimes other than TEM dominated plasmas will be addressed.

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