

Abstract Submitted  
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**Investigation of the influence of different auxiliary heating methods on the Density Limit in TEXTOR** Z. FRIIS, Georgia Institute of Technology, Y. LIANG, H.R. KOSLOWSKI, A. KRAMER-FLECKEN, G. SERGIENKO, O. ZIMMERMANN, R.C. WOLF, Institut für Plasmaphysik, Forschungszentrum Jülich, Association EURATOM-FZJ, Trilateral Euregio Cluster, Germany, [www.fz-juelich.de/ipp](http://www.fz-juelich.de/ipp), M. VON HELLERMANN, FOM-Institute for Plasma Physics Rijnhuizen, Association EURATOM-FOM, The Netherlands, [www.rijnh.nl](http://www.rijnh.nl), TEXTOR TEAM — The dependence of plasma rotation and heating power on the density limit for MARFE onset has been studied on TEXTOR using different mixtures of auxiliary heating methods (ICRH, co-, and ctr- NBI). The edge density limit in the plasma heated by NBI is two times larger than that observed in the plasma heated by ICRH ( $P_{NBI} = P_{ICRH} = 1.3$  MW). The dependence of the density limit with regard to NBI direction is not noticeable, which could be because variation of plasma edge rotation by NBI is one or two orders of magnitude lower than the ion sound speed. The experimental data indicates that the different heating methods changes the distribution of the neutral particle flux, which plays an important role in determining the threshold for the MARFE onset.

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