

Abstract Submitted  
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**Electron temperature fluctuation measurements of pedestal fluctuations in improved confinement regimes at ASDEX Upgrade**<sup>1</sup> RACHEL BIELAJEW, Massachusetts Institute of Technology, GARRARD CONWAY, Max-Planck-Institut für Plasmaphysik, LUIS GIL, Universidade Lisboa, AMANDA HUBBARD, PEDRO MOLINA CABRERA, Massachusetts Institute of Technology, DAVIDE SILVAGNI, Technische Universität München, ELEONORA VIEZZER, University of Seville, ANNE WHITE, Massachusetts Institute of Technology, THE ASDEX UPGRADE TEAM, Max-Planck-Institut für Plasmaphysik — Improved confinement regimes, including stationary ELM-free H-mode (similar to the EDA H-mode), QH-mode, and I-mode, have the benefit of high energy confinement without the presence of ELMs. These three regimes all have edge modes thought to be associated with their favorable confinement properties. Temperature fluctuation measurements provide important information on scaling and transitions between L-mode, H-mode, and improved confinement regimes. These measurements can be obtained using Correlation Electron Cyclotron Emission (CECE) with high temporal (4 MHz) and good spatial (4 mm) resolution. This work presents temperature fluctuation measurements in improved confinement regimes at ASDEX Upgrade from a multi-channel CECE radial comb. In this work, edge modes are localized, and the structure of broadband turbulence is compared between L-mode and several types of improved regimes.

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