

Abstract Submitted
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Recent results in suprathermal ion studies in TORPEX.¹
MARCELO BAQUERO-RUIZ, FABIAN MANKE, IVO FURNO, AMBROGIO FASOLI, PAOLO RICCI, Ecole polytechnique federale de Lausanne — Suprathermal ion transport in turbulent plasmas has been a main topic of research in TOPREX, a basic plasma physics device located at the Swiss Plasma Center in Lausanne, Switzerland. Through injection of lithium-6 ions using a dedicated miniature source, and detection using a gridded energy analyzer, past experiments have shown that cross-magnetic field transport can in general be non-diffusive. More recently, time-resolved measurements have allowed studying variability features of the detection signals. Theoretical studies have shown that it is possible to predict these features and model experimental observations. We show that the model agrees well with simulations and with an extensive set of experimental data. The experiments encompass configurations with different transport characteristics, including non-diffusive regimes.

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