Abstract Submitted
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Investigation of the Sawtooth Physics using ECE Imaging system on KSTAR[1] M.J. CHOI, G.S. YUN, W.C. LEE, J.B. KIM, H.K. PARK, Postech, Pohang, Korea, C.W. DOMIER, B. TOBIAS, T. LIANG, X. KONG, N.C. LUHMANN, JR., UCD, Davis, Ca, USA, A.J.H. DONNÉ, FOM Inst. of Plasma Physics, The Netherlands, T. MUNSAT, University of Colorado, Boulder, Co, USA — There have been reports on partial crash events of the sawtooth oscillation but the details such as the reconnection process and heat transport during these events were not addressed at all. Further analysis from the ECEI data (TEXTOR) provided a detailed 2D information on the internal m=1 tearing mode during the postcursor phase. In this study, the time scale of the postcursor oscillation appears to be correlated with the toroidal rotation of the plasma/core current density which is controlled by the heating beam power. It requires a systematic investigation in order to understand the causality of the various crash patterns. A new improved ECE Imaging system and available heating sources (NBI, ECH and ICRF) on KSTAR will be employed to study this subject.

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