

**Abstract Submitted for the 54th Annual Meeting  
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Category Number and Subject: 5.6.2. DIII-D Tokamak

Theory  Experiment

**Study on Sawtooth and ELM activities in DIII-D and KSTAR Plasmas,\*** J.-G. Bak, H.S. Kim, S.G. Lee, K.D. Lee, W.H. Ko, J. Kim, Y.M. Jeon, W.C. Kim, Y.S. Bae, *National Fusion Research Institute, Korea*; E.J. Strait, R.J. La Haye, R.J. Buttery, M.R. Wade, *General Atomics*; J.K. Park, *Princeton Plasma Physics Laboratory*; J.M. Hanson, *Columbia U.* – Sawtooth precursor oscillations (SPOs) are studied in neutral beam heated plasmas on DIII-D and KSTAR. The characteristics of the SPO (5–20 kHz,  $m/n=1/1$ ) are investigated using magnetic sensors along with electron cyclotron emission (ECE) and soft x-ray diagnostics. In addition, the Type I edge localized mode (ELM) precursors (8–40 kHz,  $n=2,3$ ) are detected before the ELM burst in neutral beam heated plasmas. The characteristics of the ELM precursors are investigated by using magnetic sensor data. In this work, the experimental investigations of the SPOs and ELM precursors in DIII-D and KSTAR plasmas will be presented.

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