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# P1.1033 Sawtooth activities in EAST neutral beam injection plasma

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See the full abstract here:
http://ocs.ciemat.es/EPS2019ABS/pdf/P1.1033.pdf

Neutral beam injection (NBI) system has been proved to affect sawtooth activities through both producing energetic particles and supplying torque applied to the plasma. The impact of NBI on sawtooth crashes has been studied in the EAST tokamak, which is equipped with co- and counter NBIs. Statistical analysis shows that both strong co- and counter-NBI yield stronger sawtooth activities than cases when heating power is weak. A minimum sawtooth period is observed at a counter-NBI power of 0.2 MW. This is linked to zero-plasma rotation and a non-rotating precursor mode of the sawtooth instability. This indicates that the sawtooth instability is stabilized by plasma rotation as previously suggested. The fast-ion content differs between co- and counter-NBI, so energetic particles might additionally contribute to the sawtooth activities.

## pppo

**Presenter:** CHAO, Y. (EPS 2019)

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