

Abstract Submitted  
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**Simultaneous imaging of edge-localized filaments in inboard and outboard sides of KSTAR H-mode plasmas**<sup>1</sup> JAEHYUN LEE, GUNSU YUN, MINWOO KIM, MINJUN CHOI, GYENG-HYEON CHOE, POSTECH, WOOCHANG LEE, HYEON-KEO PARK, UNIST, NEVILLE C LUHMANN JR, Univ. of California at Davis, SANG-HEE HAHN, KYU-DONG LEE, SIWOO YOON, National Fusion Research Institute, KSTAR TEAM — The spatial structure and temporal dynamics of edge-localized modes (ELMs) have been visualized simultaneously in the inboard and the outboard side pedestal of the KSTAR H-mode plasmas for the first time [1] using electron cyclotron emission imaging (ECEI) system [2]. The poloidal mode spacing of the inboard ELM filaments is much larger than the ballooning mode spacing predicted from the images of the outboard ELM filaments. The inboard ELM filaments rotate counter-clockwise (or clockwise) poloidally, opposite to the clockwise (or counter-clockwise) rotation of the outboard ELM filaments. This discrepancy suggests an asymmetry in the poloidal and/or toroidal flow of ELM filaments. In the crash dynamics, the outboard perturbation amplitude is larger compared to the inboard one and the ELM crash seems to be initiated by the bursts of the outboard ELM filaments, which is indicative of the ballooning feature of the ELM crash. [1] H.K. Park et al 2014 Proc. 25th Int. Conf. on Fusion Energy 2014 (Saint Petersburg, 2014) (to be published) [2] G.S. Yun et al., Rev. Sci. Instrum. 81 (2010) 10D930

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