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**ELM control using n=1 RMP in KSTAR** Y.M. JEON, NFRI, J.K. PARK, PPPL, Y.S. PARK, Columb U, S.W. YOON, W.C. KIM, NFRI, S.A. SAB-BAGH, Columb U, S.H. HAHN, J.H. KIM, K.S. LEE, H.K. KIM, J.G. KWAK, H.L. YANG, NFRI, KSTAR TEAM — In the 3rd campaign of KSTAR experiments, the first H-mode discharges were successfully obtained by using NBI and ECRH. The pre-installed versatile in-vessel control coil system can be easily configured to provide a n=1 non-axisymmetric magnetic perturbation. Therefore one of major goals in the 4th campaign was dedicated to investigate ELM control by using n=1 resonant magnetic perturbations. Preliminary vacuum analysis for ELM control based on the H-mode discharges from the 3rd campaign show a possibility of ELM mitigation, by applying n=1 resonant magnetic perturbation with even parity. However a further analysis based on H-mode discharges expected in the 4th campaign shows an apparent possibility of ELM suppression rather than mitigation, by controlling q95. According to this preliminary analysis, RMP power supplies, for tentative use, have been prepared and examined showing maximum currents of 1.8 kA per turns. In this presentation, we introduce preliminary experimental results of ELM control by using this n=1 resonant magnetic perturbations.

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