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Experimental Evaluation of Energy Transfer between Fast Ions and Alfven Eigenmodes¹ KENICHI NAGAOKA, MASAKI OSAKABE, MITSUTAKA ISOBE, KUNIHIRO OGAWA, YASUHIRO SUZUKI, National Institutes of Natural Sciences, National Institute for Fusion Science, SHINJI KOBAYASHI, SATOSHI YAMAMOTO, Kyoto University, YOSHIZUMI MIYOSHI, Nagoya University, YUTO KATOH, Tohoku University, JOSEP MARIA FONTDECABA, ENRIQUE ASCASIBAR, CIEMAT (Energy, Environment and Technology Research Center), LHD TEAM — Recently, a new wave-particle analyzer was proposed to identify interaction between fast ions and Alfven eigenmodes [K. Nagaoka, 67th annual meeting of APS-DPP, savanna, 2015]. A data acquisition system for the wave-particle interaction analysis was developed for particle counting mode operation of neutral particle detectors. We recently applied the system to the Si-FNA detector signals in LHD and Heliotron J, and NPA signals in TJ-II. The first experimental results obtained in three devices are presented and the importance of the optimization of line of sight will be discussed.

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