

# Progress on the KSTAR polarimetric and spectral MSE research

*Jinseok Ko<sup>a,b</sup>, Jinil Chung<sup>a</sup>, Jekil Lee<sup>b</sup>*

*<sup>a</sup> National Fusion Research Institute, Daejeon, Korea*

*<sup>b</sup> University of Science and Technology, Daejeon, Korea*

Aiming at the experimental validation of atomic data for motional Stark effect diagnostics under the CRP, the following polarimetric and spectral MSE analysis activities are reported - Application of single-ion-source-injection fitting routine to the beam-into-gas MSE spectra and comparison with two-ion-source-injection fitting analysis; System errors introduced from multi-ion source injection with finite beam width and non-focused signals; and characteristics of background polarized spectra and their effect on the MSE measurements. In addition, a little progress on a new item is reported - Application of ALCBEAM to KSTAR and its preliminary results.