Progress on the KSTAR polarimetric and spectral MSE research

Jinseok Ko$^{a,b}$, Jinil Chung$^a$, Jekil Lee$^b$

$^a$ National Fusion Research Institute, Daejeon, Korea  
$^b$ 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 spectram 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.