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Diamagnetic loop measurement in the KSTAR first plasma[1] J.G. BAK, S.G. LEE, E.M. KA, S.W. YOON, D.K. LEE, National Fusion Research Institute, KSTAR TEAM — The diamagnetic loop (DL) measurement by using two concentric poloidal loops as a loop pair enclosing a plasma column is done during the first plasma campaign in the Korea Superconducting Tokamak Advanced Research (KSTAR) machine. The compensation of vacuum fluxes in the DL measurement can be done by using a slight difference between the pick-up areas of the two loops. For the evaluation of a diamagnetic flux from the two loop signals, the contributions of toroidal field (TF) and poloidal field (PF) coils in the DL measurement are investigated from vacuum flux measurements using the two loops. In this work, experimental results from the initial DL measurement and the studies on the evaluation of the diamagnetic flux from the two loop signals will be presented.

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