Contribution ID: **26** Type: **Poster presentation**

Studies of GEM Detector as a Part of Tracker Development for the Storage Ring Proton EDM Experiment

The Center for Axion and Precision Physics Research (CAPP) of the Institute for Basic Science (IBS) participates in a storage ring experiment under development to measure the proton electric dipole moment (pEDM). This experiment is aiming to measure the proton electric dipole moment (pEDM) with the target sensitivity of 10ˆ-29 e·cm per year. GEM detector is chosen as a candidate of the tracker in the polarimeter system along with scintillation counters that measure asymmetrical proton hits. Final design of the GEM detector will have strip type anode structure for the trackers to measure the hit locations in polar and azimuth angles. This poster reports the current status of the detector development at CAPP and its performance test. The detector performance such as energy resolution, counting rate, and noise control is the main topic of this report. The CERN SRS is chosen as DAQ electronics for our detectors and corresponding software like DATE and AMORE are used for data acquisition and analysis. The application of the AMORE agent for online monitoring and data analysis is also discussed. (This work was supported by IBS-R017-D1-2017-a00.)

Primary authors: JEONG, Hoyong (Korea University, CAPP/IBS); Dr PARK, Seongtae (CAPP/IBS)

Presenter: JEONG, Hoyong (Korea University, CAPP/IBS)