**Title:** A storage ring EDM polarimeter

**Abstract:**

 The search for electric dipole moments (EDM) of elementary particles is one of the hot topic in contemporary particle physics. The method to measure charged particle EDM (p,d) is to observe the time development of a polarized beam in a dedicated storage ring (srEDM). This requires a new polarimeter with a special target system which is under development at COSY-Juelich.

 The particle detector consists of two layers: a plastic delta E scintillator and an inorganic LYSO crystal as a calorimeter. The readout for both systems is made with multi pixel SiPM arrays.
This system allows the detector to operate detector at very low supply voltage compared to traditional multi-stage vacuum tubes. The prototype of the modules are developed and are operating with a maximum voltage of 30 Volt. We have developed a modular, high precision voltage supply with its slow control and voltage archiving system.
 Moreover, the polarimeter has a high speed and high-resolution sampling ADC readout.
Its time stamping capability will be used to monitor the polarization vector of the deuteron beam.
 The final polarimeter will include a ballistic point-like pellet target which will oscillate through the beam. The monitoring of the pellet and its synchronization with the data acquisition will allow us to reconstruct the three-dimensional polarization profile of the beam bunch. Currently, we are working on its mechanical and monitoring solutions.
 I will summarize our achievements and experimental results and discuss the ongoing activities towards the dedicated srEDM polarimeter.