

## Contribution submission to the conference Bochum 2018

**Recent Progress of the Storage Ring EDM Search with the JEDI Collaboration** — ●MARIA ŻUREK for the JEDI-Collaboration — Forschungszentrum Jülich, Jülich, Germany

Understanding the origin of the matter-antimatter imbalance in the universe is one of the grand challenges of modern physics. One of the necessary conditions to explain it is the violation of CP symmetry. Predictions given by the Standard Model are orders of magnitude too small to explain the observed preponderance of matter. Therefore, new sources of CP violation, coming from outside the realm of the Standard Model, are needed. They can manifest in Electric Dipole Moments (EDM) of elementary particles.

The efforts of the Jülich Electric Dipole Moment Investigations (JEDI) Collaboration concentrate on a direct measurement of the EDM of charged hadrons (protons and deuterons). The goal of the project is to develop the required technologies for a dedicated storage-ring experiment, and to perform a first precursor measurement at the Cooler Synchrotron (COSY) using an RF Wien Filter to demonstrate the feasibility of such a study.

In my talk, I will present the status of the project with emphasis on recent achievements of the collaboration. I will discuss the first results from the commissioning of the RF Wien Filter, as well as for the polarimetry database experiment on deuteron-carbon scattering.

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