

## Contribution submission to the conference Darmstadt 2016

### Monte Carlo simulations for the JEDI polarimeter at COSY

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New CP violating sources could manifest as permanent electric dipole moments (EDM). So far, no direct measurement of a charged hadron's EDM has been achieved. The goal of the JEDI (Juelich Electric Dipole moment Investigations) collaboration is to measure the EDM of light nuclei (p,d,  $^3\text{He}$ ). In the current concept the signal is vertical polarisation build-up, measured via counting rate asymmetries scattering on a carbon target. Because the effect is very small, great care has to be taken designing the polarimeter. To study the detector performance the geometry of the candidate detector layout has been implemented in Geant4. This talk gives an overview of the planned detector concept and discusses some results of simulation studies, including comparison of simulation results to experimental data.

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