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[323] An efficient spin transport system for ultracold neutrons in the n2EDM experiment

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The n2EDM experiment at the Paul Scherrer Institut (PSI) aims to improve the sensitivity of the measurement of the neutron electric dipole moment by a factor of ten. The neutron polarization must be conserved all along their path in the apparatus. To rotate the spin of the ultracold neutrons adiabatically with the magnetic field vector, spin transport coils (STC) are installed. We present the characterization of the magnetic fields produced by these coils, and the determination of the spin transport efficiency. To compensate background fields, the STC will be extended with additional coils. The research is funded by SNF 200021_212754.

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