

Precision Magnetometry For Neutron Electric Dipole Moment Experiments

Tuesday 10 September 2013 18:00 (3 hours)

Accurate monitoring of magnetic fields is crucial for neutron electric dipole experiments to reach limits of $d \sim 10^{-27} \text{e cm}$ and below. The requirements of precision magnetometers in such experiments is discussed, with particular emphasis on the SQUID-based magnetometer developed for CryoEDM. A description of this 12-SQUID system, designed to track fields at the 0.1pT level, and the technical challenges involved in its construction are provided.

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