



Contribution ID: 105

Type: **contributed talk**

## **SQUID Magnetometry for Neutron EDM Experiments**

*Tuesday 8 April 2014 15:00 (15 minutes)*

Neutron electric dipole moment (nEDM) experiments require precision magnetometry to correct for systematic effects due to magnetic field fluctuations. I discuss the options for such magnetometers and present details of a 12-SQUID magnetometry system constructed for use in a cryogenic nEDM experiment. This has been developed to operate in 0.5 K superfluid helium and installed and tested in apparatus at the Institut Laue Langevin, Grenoble. The system is designed to track fields at the 0.1 pT level, consistent with a proposed experimental limit on an nEDM of  $d_n \sim 10^{-27}$  ecm.

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**Session Classification:** Parallel 1E

**Track Classification:** Flavour Physics and Beyond