

^3He Magnetometry Workshop

Sunday, 13 October 2024 - Tuesday, 15 October 2024

University of Michigan

Scientific Programme

Proposed sessions and talks

Theory input for 3He Magnetometry

QED theory of the nuclear magnetic shielding in ^3He

Quadratic Zeeman Effect in He-3

Higher-order nuclear effects in atomic spectra

3He g-factors

Direct measurement of the $^3\text{He}^+$ magnetic moments

H₂O diamagnetic shielding measurement with ^3He

Field calibration using protons in water

Realizing 3He Magnetometry

Towards Nuclear Spin Squeezing in Helium-3 by Continuous Quantum Nondemolition Measurement

^3He Magnetic-field calibration for the muon g-2 experiment

He-3 probe for J-PARC g-2/EDM and Museum experiment

Low-frequency characterization of a ^3He magnetometer for space application

Potential commercial helium-3 magnetometer

Applications of 3He Magnetometry

Precision Tests of Fundamental Interactions and Their Symmetries using Exotic Ions in Penning Traps

Advancing EDM searches with ultracold molecules at FRIB

Designing uniform magnetic fields

