Tata Institute of Fundamental Research
Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad – 500 046

Internal Seminar

Sensing magnetic fields using atoms - Towards a field deployable atomic magnetometer

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When light, at resonance with atomic transition, is passed through alkali gases subject to a magnetic field, the polarisation of the light rotates. This rotation in polarisation is proportional to the magnetic field. By measuring this rotation in polarisation, one can detect the magnetic field that the atoms are subjected to. There are various schemes of atomic magnetometry. This talk will cover a few schemes examined in order to make an atomic magnetometer that can provide good magnetic field sensitivity in ambient conditions.

Tuesday, Jun 17th 2025

14:30 Hrs

CR-4, TIFRH