

Diamond based quantum sensing and imaging

Fedor Jelezko

Institute of Quantum optics, Ulm University

Colour centers in diamond are promising candidates for nanoscale quantum sensing and quantum enhanced imaging. In this talk, we will highlight new techniques enabling high spectral resolution in nanoscale NMR (Schmitt et al. 2017). We will also show experiments aiming to develop hyperpolarization enhanced NMR and MRI based on polarization transfer from optically pumped electron spins in diamond to nuclear spins (Scheuer et al. 2016; Scheuer et al. 2017).

References

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