

Abstract Submitted
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Double Resonance Schemes for Nanoscale NV-NMR¹ EMMA ROSENFELD, LINH PHAM, CHINMAY BELTHANGADY, DOMINIK BUCHER, TREVOR DAVID RHONE, FRANCESCO CASOLA, RONALD WALSWORTH, Department of Physics, Harvard University — Nitrogen-Vacancy (NV) centers in diamond enable promising applications in nanoscale magnetic resonance and manipulation of spins. In this talk, dressed state schemes for nanoscale magnetic resonance using single NV centers and neighboring spins will be discussed. Such schemes are T_1^{ρ} limited and transfer polarization, enabling simultaneous manipulation and sensitive detection of both electronic and nuclear spins at the nanoscale.

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