

Publications – Institute for Quantum Optics

- (1) Frank F., Unden T., Zoller J., Said R. S., Calarco T., Montangero S., Naydenov B. & Jelezko F. **(2017)** Autonomous calibration of single spin qubit operations. npj Quantum Information 3, Article number: 48
- (2) Scheuer J., Schwartz I., Müller S., Chen Q., Dhang I., Plenio M. B., Naydenov B. & Jelezko F. **(2017)** Robust techniques for polarization and detection of nuclear spin ensembles. Phys. Rev. B 96, 174436
- (3) Stark A., Aharon N., Unden T., Louzon D., Huck A., Retzker A., Andersen U. L. & Jelezko F. **(2017)** Narrow-bandwidth sensing of high-frequency fields with continuous dynamical decoupling. Nature Communications, DOI: 10.1038/s41467-017-01159-2
- (4) Siyushev P., Metsch M. H., Ijaz A., Binder J. M., Bhaskar M. K., Sukachev D. D., Sipahigil A., Evans R. E., Nguyen C. T., Lukin M. D., Hemmer P. R., Palyanov Y. N., Kupriyanov I. N., Borzdov Y. M., Rogers L. J., & Jelezko F. **(2017)** Optical and microwave control of germanium-vacancy center spins in diamond. Phys. Rev. B 96, 081201(R)
- (5) Häußler S., Thiering G., Dietrich A., Waasem N., Teraji T., Isoya J., Iwasaki T., Hatano M., Jelezko F., Gali A. & Kubanek A. **(2017)** Photoluminescence excitation spectroscopy of SiV⁻ and GeV⁻ color center in diamond. New Journal of Physics, Volume 19
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- (8) Binder J. M., Stark A., Tomek N., Scheuer J., Frank F., Jahnke K. D., Müller C., Schmitt S., Metsch M. H., Unden T., Gehring T., Huck A., Andersen U. L., Rogers L. J. & Jelezko F. **(2017)** Qudi: a modular python suite for experiment control and data processing. SoftwareX, Volume 6, 2017, Pages 85–90
- (9) Barson M. S. J., Peddibhotla P., Ovarthaiyapong P., Ganesan K., Taylor R. L., Gebert M., Mielens Z., Koslowski B., Simpson D. A., McGuinness L. P., McCallum J., Praver S., Onoda S., Ohshima T., Bleszynski Jayich A. C., Jelezko F., Manson N. B. & Doherty M. W. **(2017)** Nanomechanical Sensing Using Spins in Diamond. Nano Lett. DOI: 10.1021/acs.nanolett.6b04544
- (10) Jantzen U., Kurz A. B., Rudnicki D. S., Schäfermeier C., Jahnke K. D., Andersen U. L., Davydov V. A., Agafonov V. N., Kubanek A., Rogers L. J. & Jelezko F. **(2016)** Nanodiamonds carrying silicon-vacancy quantum emitters with almost lifetime-limited linewidths. New J. Phys. 18 073036
- (11) Unden T., Balasubramanian P., Louzon D., Vinkler Y., Plenio M. B., Markham M., Twitchen D., Stacey A., Lovchinsky I., Sushkov A. O., Lukin M. D., Retzker A., Naydenov B., McGuinness L. P., & Jelezko F. **(2016)** Quantum Metrology Enhanced by Repetitive Quantum Error Correction. Phys. Rev. Lett. 116, 230502

- (12) Wu Y., Jelezko F., Plenio M. B. & Weil T. **(2016)** Diamond Quantum Devices in Biology. *Angewandte Chemie-International Edition* 55, 6586-6598
- (13) Felgen N., Naydenov B., Turner S., Jelezko F., Reithmaier J. P., Popov C. **(2016)** Incorporation and study of SiV centers in diamond nanopillars. *Diamond and Related Materials* 64, 64–69
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- (16) Chen Q., Schwarz I., Jelezko F., Retzker A. & Plenio M. B. **(2016)** Resonance-inclined optical nuclear spin polarization of liquids in diamond structures. *Phys. Rev. B* 93, 060408
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