Karen L. Sauer

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EDUCATION

Princeton University	Physics Ph.D.	1998
Ecole Normale Supérieure	Postdoctoral researcher	1999-2000
Naval Research Laboratory	Postdoctoral researcher	2000–2002

EXPERIENCE

2013 –	Professor
2007 – 2013	Associate Professor
2002 – 2007	Assistant Professor

Recent Grants

1. KL Sauer (subcontract to SRI) *MAGNEATO: MAGnetometer for Next-gen Electrically small AnTenna Optimization. DARPA, 2024-2026*

2. KL Sauer (subcontract to Twinleaf)*, Open environment nuclear quadrupole magnetic resonance detection.* SBIR, 2023-2026

3. KL Sauer (PI), Mazin (co-PI) *Experimental and theoretical studies of iron pnictides through zero field nuclear magnetic resonance*, NSF, 2022-2026

4. KL Sauer (PI), *Quantum Magnetometers for Rapid Identification of Resonance Frequencies in Explosives, Pharmaceuticals, and Other Substances*, NSF, 2017-2023

Recent Publications (students)

1. JN Ansari, KLS, *Spin-3/2 nuclear magnetic resonance: Exact analytical solutions for aligned systems and implications for probing Fe-based superconductors,* PRB **110**, 214422 (2024)
2. D.J. Heilman, KLS, DW Prescott, CZ Motamedi, N. Dural and MV Romalis, TW Kornack, *Large-scale multipass two-chamber rf atomic magnetometer*, PRApplied **22**, 054024 (2024).
3. JN Ansari, KLS, II Mazin, *Slow tail of nematic spin fluctuations in* $Ba(Fe_{1-x}Co_x)_2As_2$*: Insight from nuclear magnetic resonance,* PRB **108**, 064516 (2023).
4. CZ Motamedi, KLS, *Magnetic Jones Vector Detection with RF Atomic Magnetometers*, PRA **20**, 014006 (2023)
5. RJ Cooper, DW Prescott, KLS, N Dural, MV Romalis, *Intrinsic RF gradiometer*, PRA **106**, 053113 (2022).
6. DR Quiroz, RJ Cooper, EL Foley, TW Kornack, GJ Lee, KLS, *Interleaved NQR detection using atomic magnetometers,* JMR **343**, 107288 (2022).
7. KE Nixon, KLS, *Pulsed spin-locking of spin-3/2 nuclei:* ^{39}*K-NQR of potassium chlorate,* JMR **335**, 107145 (2022).

For other publications see: https://scholar.google.com/citations?user=SoQd2YQAAAAJ