

## Quantum Information, Simulation and Sensing

Mon, 2014-05-19 21:40 - [Nir Bar-Gill](#) [1] **Website:**

<http://bargill.phys.huji.ac.il> [2]

**Research Type:** Experiment

Our research focuses on addressing and manipulating isolated quantum systems, with the following goals:

- Studying fundamental quantum physics and quantum information science
- Using them as building blocks for quantum computing and quantum simulation of many-body systems
- Devising novel, sensitive nanoscale sensors

Currently our research is based on a specific defect in diamond, the Nitrogen Vacancy (NV) color center, which exhibits remarkable and unique properties, including long coherence ( $\sim$  ms) times at room temperature, optical initialization and readout, and coherent microwave control.

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### Location

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