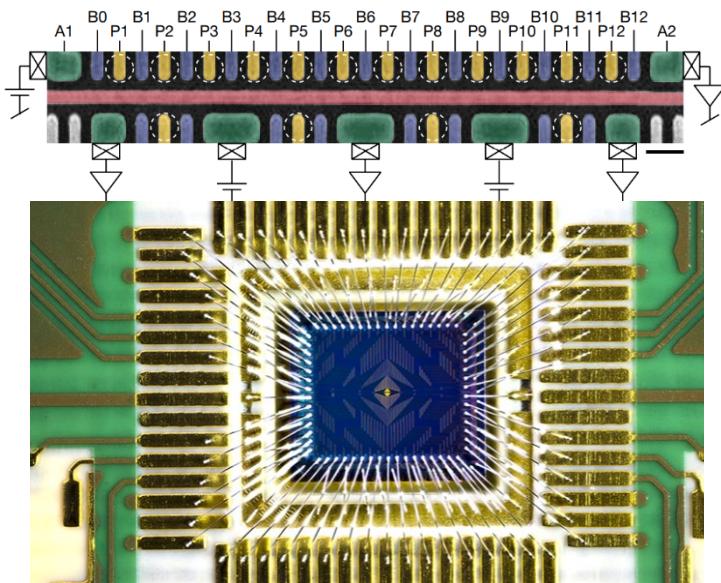


Master thesis on

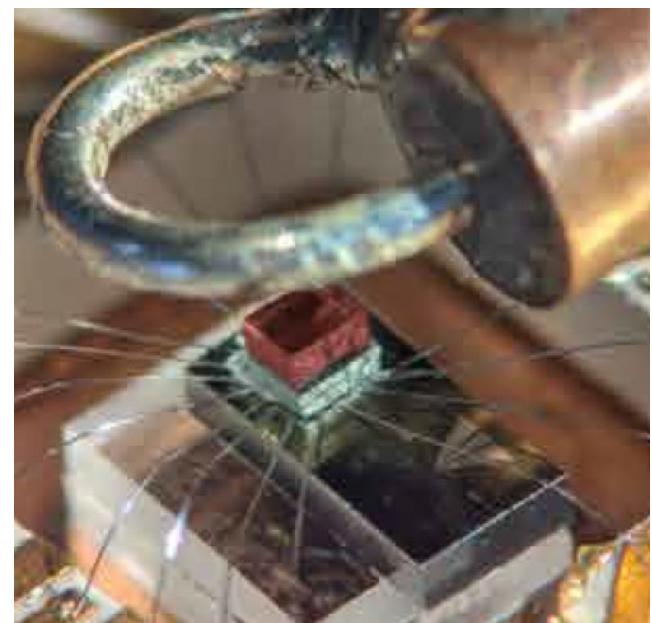
Global spin qubit control design

We are looking for a motivated student to perform electromagnetic simulations aimed at optimizing antenna designs for **Electron Spin Resonance** (ESR). ESR is a well-established technique used to control **semiconductor spin qubits**. The Quantum Coherence Lab is conducting experiments on advanced Tunnel Falls spin qubit devices developed by Intel Labs. Our team aims to achieve global control of spin qubit systems—enabling the manipulation of large qubit arrays with a minimal number of control lines. In addition to EM design and electrical characterization, the student will have the opportunity to participate in prototype measurements involving spin qubits at millikelvin temperatures, gaining valuable hands-on experience in quantum device research.



Hubert C. George et al, Nano Letters (2025)

Ensar Vahapoglu et al, Sci. Adv. 7, (2021)



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