

The Geonium Chip Penning Trap

The Geonium Chip group (University of Sussex, UK) is in the process of building a unique scalable Penning Trap for use in quantum technology. We present an innovative PCB-chip-based Penning Trap system for quantum-non-demolition measurements of single microwave photons.

One such innovation is the design, build and implementation of a planar magnetic field source whose field may be changed in-situ. At the heart of the technology lies a single trapped electron, which will be the quantum transducer for single microwave photon detection and emission.

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