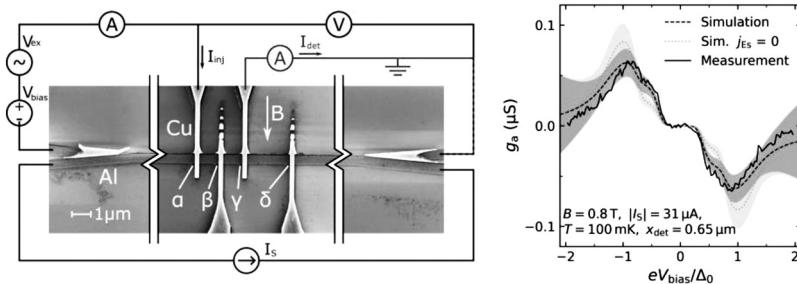


SPIN TRANSPORT IN HIGH-FIELD SUPERCONDUCTORS

Paul Maier, Detlef Beckmann

Institute for Quantum Materials and Technologies, Karlsruhe Institute of Technology,
Kaiserstraße 12, 76131 Karlsruhe, Germany

Quasiparticle transport in high-field superconductors is characterized by four nonequilibrium modes, reflecting the particle-hole and spin degrees of freedom [1-2]. We will give a brief overview of the field, and report on an experimental investigation of the spin-dependent coupling of supercurrent and quasiparticles in superconducting aluminum wires [4]. At low temperature, we observe the supercurrent-induced coupling of energy and charge imbalance with spectral resolution. At high magnetic fields, in the presence of a Zeeman splitting of the density of states, we find evidence for a recently predicted [3] spin-dependent coupling of supercurrent and quasiparticles.



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Corresponding author: Prof. Dr. Detlef Beckmann

Institute for Quantum Materials and Technologies, Karlsruhe Institute of Technology
Kaiserstraße 12, 76131 Karlsruhe, Germany
e-mail: detlef.beckmann@kit.edu
ORCID: 0000-0002-6212-2762