

Abstract Submitted
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Topological Two-Channel Kondo Effect in Majorana Transistor¹

ZHI-QIANG BAO, FAN ZHANG, Department of Physics, University of Texas at Dallas — A one-dimensional time-reversal-invariant topological superconductor hosts a Majorana Kramers pair at each end, where time-reversal symmetry acts as a supersymmetry that flips local fermion parity. We examine the transport anomaly of such a superconductor, floating and tunnel-coupled to normal leads at its two ends. We demonstrate the realization of a topologically-protected, channel-symmetric, two-channel Kondo effect without fine-tuning. Whereas the nonlocal teleportation vanishes, a lead present at one end telecontrols the universal transport through the other end. (arXiv:1607.04303 (2016))

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Zhi-qiang Bao
Department of Physics, University of Texas at Dallas

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