Charge and spin currents in normal metal sandwiched by tow p-wave

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Abstract
Charge and spin transport properties of a clean $SSNSS$ Josephson junction (triplet superconductor-normal metal-triplet superconductor) are studied using the quasiclassical Eilenberger equation of Green’s function. Our system consists of two p-wave superconducting crystals separated by a Copper nano layer. Effects of thickness of normal layer between superconductors on the spin and charge currents are investigated. Also misorientation between triplet superconductors which creates the spin current is another subject of this paper.

Keywords: triplet superconductor, Josephson current, spin current

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