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The symmetry of phase-coherent thermopower oscillations in Andreev interferometers¹ PAUL CADDEN-ZIMANSKY, ZHIGANG JIANG, VENKAT CHANDRASEKHAR, Department of Physics and Astronomy, Northwestern University — We study the thermopower of diffusive Andreev interferometers, which are hybrid loops with one normal-metal arm and one superconducting arm. The thermopower oscillates as a function of the magnetic flux through the loop with a fundamental period corresponding to one flux quantum $\Phi_0 = h/2e$. These oscillations may be symmetric or antisymmetric with respect to the magnetic flux. New measurements on double-loop Andreev interferometers in which the flux through each interferometer can be independently controlled by on-chip field coils show that the symmetry of the thermopower oscillations is related to the distribution of the supercurrent in the device. We compare our experimental results with recent theoretical work.

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