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**Current Correlations in a Majorana Beam Splitter** EREZ BERG, ARBEL HAIM, Department of Condensed Matter Physics, Weizmann Institute of Science, Rehovot, 76100, Israel, FELIX VON OPPEN, Dahlem Center for Complex Quantum Systems and Fachbereich Physik, Freie Universitat Berlin, 14195 Berlin, YUVAL OREG, Department of Condensed Matter Physics, Weizmann Institute of Science, Rehovot, 76100, Israel — We study current correlations in a  $T$ -junction composed of a grounded topological superconductor and of two normal-metal leads which are biased at a voltage  $V$ . We show that the existence of an isolated Majorana zero mode in the junction dictates a universal behavior for the cross correlation of the currents through the two normal-metal leads of the junction. The cross correlation is negative and approaches zero at high bias voltages as  $-1/V$ . This behavior is robust in the presence of disorder and multiple transverse channels, and persists at finite temperatures. In contrast, an accidental low-energy Andreev bound state gives rise to non-universal behavior of the cross correlation. We employ numerical transport simulations to corroborate our conclusions.

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