Abstract Submitted
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Persistent Flow in Fermionic Superfluid Rings[1] KEVIN WRIGHT, YANPING CAI, DANIEL ALLMAN, PARTH SABHARWAL, Dartmouth College — We will report on our efforts to create persistent currents and Josephson junctions in a ring of dilute fermionic superfluid, which requires a somewhat different technical approach than previous experiments with bosonic superfluids. Our goal is to test predictions of quantum many-body theory for superflows in this setting. After validating these methods in the well-understood BEC-BCS regime, we will apply them to studying transport phenomena in unconvenional fermionic superfluids and other exotic quantum phases of matter.

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