

Abstract Submitted
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Thermal Memristive Devices LUKE SHAPIRO, KAMIL WALCZAK,
Pace University — We examine heat transfer via Coulomb Blockaded quantum systems connected to two heat reservoirs (thermal baths). Specifically, we propose simple models for negative differential thermal conductance and pinched hysteretic loops in the heat fluxes as functions of temperature. Our computational method is based on the theory of propagators, where additional mechanisms of shifting and blocking specific energy levels is incorporated. Those devices may play a major role in the future thermal management.

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