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Low-Temperature Thermal Conductivity in a d-Wave Superconductor with Coexisting Checkerboard Charge Order PHILIP SCHIFF, ADAM DURST, Stony Brook University — Given the experimental evidence of charge order in the underdoped cuprate superconductors, we consider the effect of coexisting checkerboard charge order on low-temperature thermal transport in a d-wave superconductor. We compute the quasiparticle excitation spectrum in the presence of both order parameters and perform a diagrammatic Kubo formula calculation of the zero-temperature thermal conductivity tensor as a function of the magnitude and wave vector of the charge order. Results depend on disorder, indicating that, in the presence of charge order, zero-temperature thermal transport is no longer universal.

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