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**Ubiquity of Linear Resistivity at Intermediate Temperature in Strongly Correlated Metals** GREG BOYD, Georgetown University, V. ZLATIC, Institute of Physics Zagreb Croatia, JIM FREERICKS, Georgetown University — Correlated metals display transport behavior that differs from what is commonly seen in ordinary metals (Fermi-liquids). One of the most salient features is a resistivity that is linear in temperature over decades in temperature and rises to well above the Ioffe-Regel limit (where the mean-free path is less than a lattice spacing). Using an exact representation of the Kubo linear response, we show that a linear resistivity naturally occurs in a minimal model that includes only hopping and correlation. We expect this to be common to many systems at an incoherent intermediate-temperature state, above the Fermi coherence scale. We verify the analytic arguments with exact calculations for Falicov-Kimball model which is solved with dynamical mean-field theory. Similar features have also been seen in Hubbard models, which can be approximated by the Falicov-Kimball model.

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