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**High Temperature Measurement of Quantum Viscosity in a Strongly Interacting Fermi Gas** CHENGLIN CAO, ETHAN ELLIOTT, JAMES JOSEPH, Duke University, JESSIE PETRICKA, Gustavus Adolphus College, HAIBIN WU, JOHN THOMAS, Duke University — We determine the quantum viscosity of a strongly interacting Fermi gas in the high temperature regime using precision measurements of the expansion dynamics. Our results demonstrate that the magnitude and temperature scaling are in very good agreement with recent theoretical predictions. This work paves the way for quantum viscosity measurements in the low temperature regime where a strongly interacting Fermi gas is believed to be a nearly perfect fluid.

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