

Abstract Submitted
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Photoemission Spectroscopy of an Ultra Cold Fermi Gas¹ JOHN P. GAEBLER, J. T. STEWART, DEBORAH S. JIN, JILA - University of Colorado — We report on our latest results using photoemission spectroscopy to directly probe the elementary excitations and energy dispersion of a strongly interacting Fermi gas of atoms. In these photoemission experiments, an rf photon ejects an atom from our strongly interacting system via a spin-flip transition to a weakly interacting state. This new measurement technique for ultracold atom gases, like photoemission spectroscopy for electronic materials, directly probes low energy single-particle excitations and thus can reveal excitation gaps and/or pseudogaps.

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