

Abstract Submitted
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Imaging the Fano lattice in the heavy fermion material URu₂Si₂ by scanning tunneling spectroscopy ANDREW SCHMIDT, MOHAMMAD HAMIDIAN, Cornell University, PETER WAHL, Max Planck Institut, FOCKO MEIER, Cornell University, GRAEME LUKE, McMaster University, J.C. DAVIS, Cornell University, CORNELL UNIVERSITY TEAM, MCMASTER UNIVERSITY TEAM — We present scanning tunneling spectroscopy measurements of the heavy fermion material URu₂Si₂. Two dimensional differential conductance maps of mechanically cleaved surfaces reveal a narrow Fano lineshape about the Fermi level that is pervasive across the field of view. Such a lineshape is expected whenever a discrete energy level is coupled to a continuum of levels. By fitting the spectra to a Fano function, we produce maps showing the variation of the Fano parameters across the surface.

Andrew Schmidt
Cornell University

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