

Abstract Submitted
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Characterization of a Degenerate Fermi Gas of ^{87}Sr B.J. DESALVO,
M. YAN, T.C. KILLIAN, Rice University — We report progress on the study of a
SU(10) degenerate Fermi gas of neutral ^{87}Sr atoms. We will describe measurements
of the magnetic sublevel populations using the optical Stern-Gerlach effect and dis-
cuss prospects for utilizing an optical Feshbach resonance to modify interactions.
The ability to directly measure spin population and manipulate interactions, com-
bined with the achievement of low T/T_F paves the way toward studying the rich
physics predicted for this novel system.

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