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Measurements on RF-dressed Bose Einstein Condensates MATTHEW R. WHITE, HONG GAO, MATTHEW PASIENSKI, BRIAN DEMARCO, University of Illinois at Urbana-Champaign — The formation of dressed states from the Zeeman sublevels of magnetically trapped atoms in an applied RF field is relevant to processes such as evaporative cooling and atom lasers. In this work, we investigate a dressed state condensate of ^{87}Rb atoms in the $F = 1$ state. The spin state composition of RF-dressed, magnetically trapped atoms is measured and the transfer of dressed atoms into adiabatic potentials is explored. Finally, we discuss potential applications to trapping atoms in novel geometries.

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