Abstract for an Invited Paper for the DNP10 Meeting of The American Physical Society

Intersections of nuclear physics and cold atom physics THOMAS SCHAEFER, North Carolina State University

Cold atomic Fermi gases in which the interaction between the atoms can be tuned via Feshbach resonances are a new paradigm for strongly interacting quantum fluids. I will discuss a number of properties of these systems that are of interest to nuclear physicists: i) the equation of state, ii) superfluidity and the response to pair-breaking perturbations, iii) nearly perfect fluidity.