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Density Profile of Asymmetric Two-component Fermionic Systems at Infinite Scattering Length THOMAS LUU, JOSEPH CARLSON, SANJAY REDDY, Los Alamos National Laboratory — We investigate the properties of asymmetric two-component fermionic systems at strong coupling ($k_f a = \infty$). Density profiles of these systems are calculated at the Thomas-Fermi level. We show that the height of the discontinuity between the superfluid phase and normal phase can be influenced by the value of ξ , the proportionality constant in the universal regime. Such a relationship may prove useful in experimentally determining ξ . Also, we calculate the specific heat of such systems.

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