

Quantum Monte Carlo Studies of Asymmetric Fermi Systems

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The physics of asymmetric (partially spin-polarized) systems offers the intriguing possibility of new phases of matter and new phenomenon. I describe recent calculations near the $a=\infty$ limit for asymmetric problems and analytic studies in the weak- and strong-coupling limits. We find that the 'gapless-superconducting' state is stable compared to a phase-separated state at strong coupling, and that this transition occurs near the $a=\infty$ limit.