

Abstract Submitted
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Correlation effects in the BCS/BEC crossover. JOCHEN WACHTER, MURRAY HOLLAND, Department of Physics and JILA, University of Colorado, Boulder, CO 80309-0440 — We use imaginary-time propagation to find zero-temperature ground states in the BCS/BEC crossover. A cumulant expansion allows us to systematically include higher-order interactions between bosons and fermions. In particular, we calculate the Hartree term across the resonance and show how to correctly describe the dimer-dimer scattering on the BEC side.

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