

Abstract Submitted
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Speckle Imaging of Degenerate Fermi Gases¹ EDWARD SU, MIT,
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WOLFGANG KETTERLE — We develop a technique for measuring the fluctuations in the total and relative density of two-component gases, based on the dispersive imaging of speckle patterns. The compressibility and susceptibility can be extracted from the measured fluctuations. Using this technique, we study the pair correlations of strongly interacting Fermi gases, both in the BEC-BCS crossover and in the case of strong repulsive interactions.

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