

Abstract Submitted
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Initial Atom Loss Rate after the Sudden Ramp of a BEC to Unitarity¹ ERIC BRAATEN, ABHISHEK MOHAPTRA, D. HUDSON SMITH, Ohio State University — The quantum-degenerate unitary Bose gas has been studied in an experiment at JILA in which a Bose-Einstein condensate was quickly ramped to infinite scattering length. The sudden approximation can be used to calculate the probability for creating Efimov trimers. A trimer that is created in a region of the BEC where its decay rate is faster than its reaction rate from atom-trimer scattering can contribute to the initial atom loss rate. We use universal 3-body and 4-body results to estimate the initial atom loss rate.

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