
Lifetime of the Bose Gas with Resonant Interactions

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Résumé

We study the lifetime of a Bose gas at and around unitarity using a Feshbach resonance in lithium-7. At unitarity, we measure the temperature dependence of the three-body decay coefficient λ_3 . Our data follow a $\lambda_3 = \lambda_3/T^2$ law with $\lambda_3 = 2.5(3)_{\text{stat}}(6)_{\text{sys}} 10^{-20} (\mu\text{K})^2 \text{cm}^6 \text{s}^{-1}$ and are in good agreement with the universal prediction.

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