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Three-body contact dynamics in quenched unitary Bose gases[1]

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— We study the dynamical evolution of the three-body contact in the Bose gas after a quench to the unitary regime. The three-body contact is central to a set of universal relations underlying the many-body theory of the unitary Bose gas [1,2]. We extract the three-body contact by studying three-body correlations at short-distances and times after the quench through a simple model based on analytic solutions of the three-body problem. Our results demonstrate that the three-body contact grows slowly compared to the two-body contact, exhibits coherent oscillations at the frequency of Efimov trimers, and violates the continuous scaling invariance of unitary bosonic systems via the appearance of log-periodic modulation of three-body correlations. [1] E. Braaten, D. Kang, and L. Platter, Phys. Rev. Lett., **106**, 153005 (2011). [2] F. Werner and Y. Castin, Phys. Rev. A, **86**, 053633 (2012).

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