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Energy dependent 3-body loss in out-of-equilibrium 1D Bose gases LAURA ZUNDEL, LIN XIA, JOSHUA WILSON, JEAN-FELIX RIOU, DAVID WEISS, Penn State University — We measure the three-body loss of out-of-equilibrium one-dimensional (1D) Bose gases and find that it depends strongly on the average energy of the distribution. The theory of three-body loss in 1D gas experiments is incomplete due to the challenge of calculating how correlations evolve. We present an empirical model based on energy dependent correlations and show that it reproduces the data.

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