

Nonequilibrium Bose Gas in a Box

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Compared to the traditionally studied harmonically trapped ultracold atomic gases, the spatially uniform gases produced in optical box traps offer many new possibilities for studies of fundamental many-body physics and comparisons with theory. I will give an overview of our recent experiments on out-of-equilibrium box-trapped Bose gases, including the studies of turbulence [1] and of universal coarsening dynamics [2,3].

[1] L. H. Dogra et al., Nature 620, 521 (2023)

[2] M. Gazo et al., arXiv:2312.09248

[3] G. Martirosyan et. al., arXiv:2410.08204