

Abstract for an Invited Paper
for the DAMOP06 Meeting of
The American Physical Society

Dynamics and correlations in one-dimensional gases

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One-dimensional gases, bosonic or fermionic ones, are examples of strongly correlated systems in which interactions dominate. Recent experiments with cold atoms allow for a detailed study of peculiar correlation properties of these systems. I will show how various correlation properties, in particular the phase coherence, can be obtained from the solutions of exactly solvable models in one dimension and discuss possible dynamical manifestation of the strongly interacting regime.