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Dynamics of phase separation and coarsening in binary Bose-Einstein condensates[1] JOHANNES HOFMANN, STEFAN NATU, Univ of Maryland-College Park — Cold quantum gases provide an ideal testbed to study the out-of-equilibrium dynamics of quantum systems. We consider the nonequilibrium dynamics of a coupled binary mixture of Bose-Einstein condensates. Depending on the coupling between the two components, the system can exist in either a miscible or a phase-separated ground state, which are separated by a quantum phase transition. We present results on the dynamics of domain formation and coarsening after a quench across this phase boundary.

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