- **Dissipative dynamics of trapped atomic Bose-Einstein condensates**
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We investigate the effect of a weak correlated disorder potential on the collective dipole motion of a harmonically-confined elongated condensate. By using an extension of the Harmonic Potential Theorem, we demonstrate that the dynamics of the system can be described equivalently in terms of a disorder potential oscillating relative to a stationary condensate. This latter point of view allows the application of linear response theory to determine the drag force experienced by the condensate and to evaluate the damping rate of the centre of mass oscillation. The density response function for the elongated condensate is determined with a new local density approximation that takes into account the tight radial confinement of the atomic cloud. Our linear response theory reveals the detailed dependence of the damping rate on various system parameters. A comparison with available experimental data is only partially successful and points to the need for additional experimental and theoretical work.