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Quantum Turbulence in Trapped Atomic Bose-Einstein Condensates

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The notion of turbulence in the quantum world was conceived long ago by Onsager and Feynman, but the occurrence of turbulence in ultracold gases has been studied in the laboratory only very recently. Albeit new as a field, it already offers new paths and perspectives on the problem of turbulence. Here the general properties of quantum gases at ultralow temperatures are considered, paying particular attention to vortices, their dynamics and turbulent behavior. Also a discussion on recent theoretical and experimental advances is made.