

FULLY DEVELOPED RAYLEIGH-BÉNARD AND TAYLOR-COUETTE TURBULENCE

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In this lecture we will summarize our advances in the understanding of turbulent Rayleigh-Bénard convection and turbulent Taylor-Couette flow during the last decade, addressing the progress both in experiments, theory, and numerics. We will also discuss rotating and boiling turbulent Rayleigh-Bénard flow and the drag reduction in bubbly Taylor-Couette flow.

Keywords: turbulence;thermal convection;two-phase flow;boiling;boundary layers;