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Quasi-2D turbulence in bounded domains HERMAN CLERCX,

Eindhoven University of Technology — In this talk recent laboratory experiments and numerical studies of bounded (quasi) two-dimensional (2D) turbulence will be discussed. The laboratory experiments concern decaying stratified turbulence in square and rectangular containers with emphasis on the self-organization and spontaneous spin-up of the flow. Further analysis of this phenomenon will be provided by results from direct numerical simulations of decaying and forced 2D turbulence. The role of the interaction of turbulence with the no-slip walls and the destabilizing role of the boundary layers, containing large-amplitude vorticity, will be discussed.

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