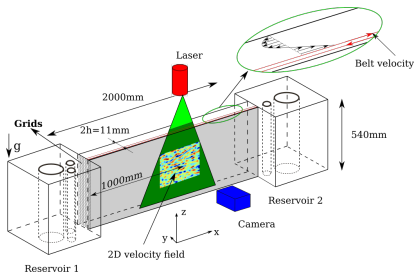


Dynamics of turbulent structures in Couette-Poiseuille flow

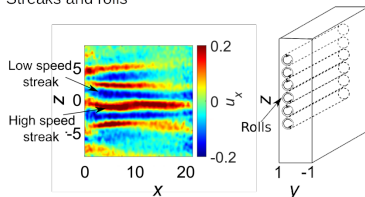
Benoît Semin, Tao Liu, Ramiro Godoy-Diana, José Eduardo Wesfreid

PMMH, CNRS, ESPCI Paris, PSL, Sorbonne Université, Université Paris Cité



Couette-Poiseuille channel

Streaks and rolls



Structures :

- streaks, i.e. fluctuations of the streamwise velocity u_x
- rolls, i.e. streamwise vortices



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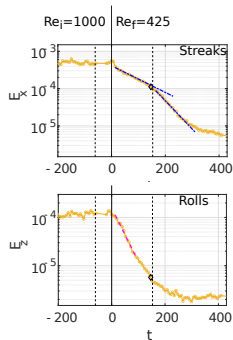
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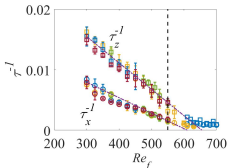
Experimental results

Decay of turbulence :



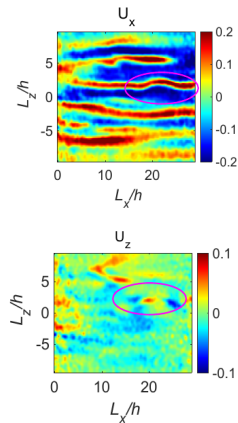
⇒ consistent with lift-up effect

Noise



⇒ Results of decay independent of noise level

Waviness of streaks



⇒ u_z component correlated with waviness of streaks