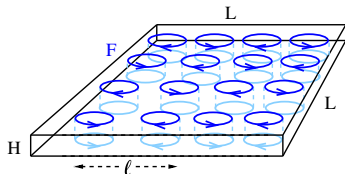


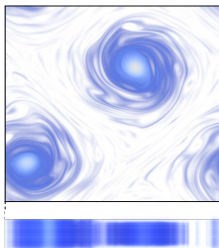
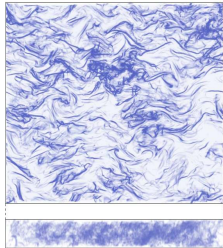
Rare transitions to thin-layer turbulent condensates

Adrian van Kan, Takahiro Nemoto, Alexandros Alexakis

- Direct Numerical Simulations, periodic b.c., spectrally-local forcing at $|\mathbf{k}| = k_f$
- Transition towards inverse cascade below threshold height H_{3D}
- For $H \approx H_{3D}$ bistability between

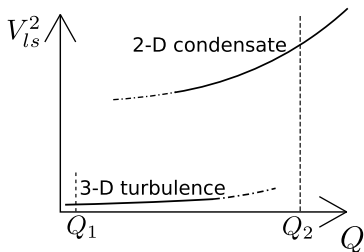


3-D turbulence & 2-D condensate

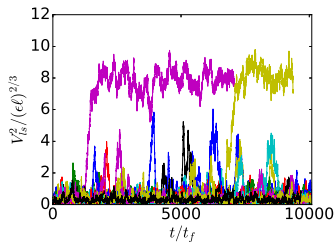


Results: Rare transitions, transition times, double-well

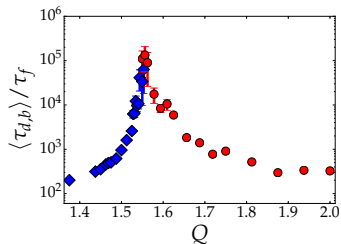
bistable regime



rare transitions



transition times \nearrow **superexp.**



eff. double-well potential

