SEMPARIS – Séminaires en région parisienne

http ://string.lpthe.jussieu.fr/semparis/

Colloquium of the Physics Department of ENS

Mardi 25 Juin 2019, 17 :15 LPENS, Salle Jaures Domaines : nlin

Titre : Extracting Order from Disorder : Periodic Orbits Buried in Fluid Turbulence

Orateur : Rich Kerswell (DAMTP, University of Cambridge)

Résumé : Ideas from dynamical systems have recently provided fresh insight into transitional and weakly turbulent flows. Viewing such flows as a trajectory through a phase space littered with simple invariant ('exact') solutions and their stable and unstable manifolds has proved a fruitful way of understanding such flows. Central to this approach is identifying such exact solutions directly from turbulent flow data. I will discuss amongst other things recent attempts to harness Koopman operator theory in this quest.