Workshop on Instantons and Extreme Events in Turbulence and Dynamical Systems

IMPA, Rio de Janeiro, December, 7 - 10

Program

Hour	Monday 7th	Tuesday 8th	Wednesday 9th	Thursday 10th
9:00	Registration			
09:30	Welcome		**EVGENY KUZNETSOV** Breaking phenomena in incompressible fluids as a route to the Kolmogorov and Kraichnan spectra	
10:00	**FREDDY BOUCHET** Introduction to large deviation theory in turbulence and other complex dynamical systems	**THIERRY DOMBRE** Instantons, zero modes and fluctuations in the Kraichnan model for turbulent advection		**Discussion**
10:30			**LUCA BIFERALE** Extreme events in Turbulence under Fourie decimation	
11:00	**DAVID MESTERHAZY** Instantons and Lattice Monte Carlo Methods in Turbulence	**FREDDY BOUCHET** Large deviation theory and the Eyring–Kramers formula for non gradient dynamics. Applications to abrupt transitions for turbulent atmosphere jets		
11:30			**FRANCESCO RAGONE** Large deviation theory and simulation of heat waves in climate models	
12:00	Lunch	Lunch		
12:30			Lunch	Lunch
13:00				
13:30	**GREGORY FALKOVICH** Vorticity instanton renormalized by fluctuations		Social Activity: **Boat Trip**	
14:00		**LEONARDO GRIGORIO** Instantons in a Lagrangian model of turbulence		
14:30	**ALEXEI MAILYBAEV** Dynamics after blowup: a universal route to stochasticity in turbulence models			
15:00		**LUCA MORICONI** Velocity Gradient Fluctuations in a Lagrangian Model of Turbulence		
15:30	Coffee Break			
16:00	**VICTOR L'VOV** Statistic of Superfluid Turbulence	Coffee Break		
16:30		**TAKAHIRO NEMOTO** Population dynamics with a feedback control		
17:00				
17:30		Cocktail		