

Workshop

"Nonlocality in turbulence"

Wolfgang Pauli Institute, Vienna, Austria, December 2-5, 2013

**All lectures at the new address:
Oskar Morgenstern Platz 1, 1090 Vienna
ROOM NO. 08.135 (8TH FLOOR)**

Afternoon MONDAY December 2, 2013

Chair Arkady Tsinober

13:00 - 13:30		Registration and Welcome ROOM NO. 08.135
13:30 - 14:00	Arkady Tsinober	Introductory
14:00 - 14:45	Luca Biferale	Non-local effects in 3D Navier-Stokes equations.
14:45 - 15:15		Coffee Break
15:15 - 16:00	Laurent Chevillard	Non local nature of the vorticity stretching phenomenon, and applications for random velocity fields
16:00 - 16:45	Rainer Grauer	Tuning the locality of the interaction in turbulence

Morning TUESDAY December 3, 2013

Chair Sergey Nazarenko

10:00 - 10:45	Bérendère Dubrulle	A zero-mode mechanism for spontaneous symmetry breaking in a turbulent von Karman flow
10:45 - 11:15		Coffee break
11:15 - 12:00	Koji Ohkitani	Remarks on the regularity for the Navier-Stokes equations: self-similarity and criticality revisited
12:00 - 12:45	Joerg Schumacher	Universal fluctuations of velocity gradients and the onset of small scale intermittency
12:45 - 14:15		LUNCH

Afternoon TUESDAY December 3, 2013

Chair Joerg Schumacher

14:15 - 15:00	Eberhard Bodenschatz	Results from the Goettingen Turbulence Facility
15:00 - 15:45	Nick Ouellette	Hidden Ordering in the 2D Inverse Cascade
15:45 - 16:05		Coffee Break
16:05 - 16:45		Discussion

Morning WEDNESDAY December 4, 2013

Chair Bérengère Dubrulle

10:00 - 10:45	Alexander Schekochihin	Critical Balance as a Universal Scaling Conjecture and its Application to Rapidly Rotating and MHD Turbulence
10:45 - 11:15		Coffee break
11:15 - 12:00	Sergey Nazarenko	Nonlocal Wave Turbulence
12:00 - 12:45	Alexandros Alexakis	Universality in MHD turbulence?
12:45 - 14:15		LUNCH

Afternoon WEDNESDAY December 4, 2013

Chair Alexander Schekochihin

14:15 - 15:00	Pierre Augier	Spectral analysis of nonlocal transfers in strongly stratified turbulence
15:00 - 15:45	Noé Lahaye	Non-universality and non-locality in rotating shallow water turbulence
15:45 - 16:15		Coffee Break
16:15 - 17:15		Discussion

Morning THURSDAY, December 5, 2013

Chair Nick Ouellette

10:30 - 11:15	Victor L'vov	Non-locality of the energy transfer in superfluids and energy spectra of Kelvin waves
11:15 - 12:00	Emmanuel Lévêque	Energy spectra and characteristic scales of quantum turbulence investigated by numerical simulations of the two-fluid model
12:00 - 13:15		Coffee Break <i>continued into general discussion</i>