

# Waves, Coherent Structures, and Turbulence (WCST2019)

University of East Anglia, Norwich, UK

30<sup>th</sup> October – 1<sup>st</sup> November 2019

Time	Wednesday (30 <sup>th</sup> October 2019)	Thursday (31 <sup>th</sup> October 2019)	Friday (1 <sup>st</sup> November 2019)
	John Innes Centre Room 1 & 2 Centrum	John Innes Centre Room Watson & Crick	John Innes Centre Room Watson & Crick
09:00-09:30	<b>REGISTRATION AND OPENING</b>	Miguel Onorato	
09:30-10:00	Jason Laurie		Thibault Congy
10:00-10:30		Gennady El	Hayder Salman
10:30-11:00	<b>COFFEE BREAK</b>	<b>COFFEE BREAK</b>	<b>COFFEE BREAK</b>
11:00-11:30	Gavin Esler	Emilian Parau	Thomas Gasenzer
11:30-12:00	Andrew Gilbert	Anna Kalogirou	Simon Thalabard
12:00-12:30	Laura Cope	Stéphane Randoux	Pierre Suret
	Sainsbury Centre for Visual Arts	Sainsbury Centre for Visual Arts	Sainsbury Centre for Visual Arts
12:30-14:30	<b>LUNCH</b>	<b>LUNCH</b>	<b>CLOSING REMARKS</b> <b>LUNCH</b>
	UEA New Science Building Room 0.06	John Innes Centre Room Watson & Crick	
14:30-15:00	Renzo Ricca	Sergey Nazarenko	
15:00-15:30			
15:30-16:00	<b>COFFEE-BREAK</b>	<b>COFFEE-BREAK</b>	
16:00-16:30	Andrew Baggaley	Miguel Bustamante	
16:30-17:00	Magnus Borgh	Christophe Josserand	
17:00-17:30	Amit Chattopadhyay	<b>FREE FOR DISCUSSIONS</b>	
	UEA Julian Study Centre Foyer	<b>OR</b>	
17:30-19:30	<b>POSTER SESSION</b> <b>DRINKS AND NIBBLES</b>	<b>DISCOVER NORWICH TOUR</b>	
19:30		<b>SOCIAL DINNER IN NORWICH</b> <b>(St Andrews Brew House)</b>	

### Classical vortex dynamics

<b>NAME</b>	<b>PRESENTATION TITLE</b>
Jason Laurie	An introduction to 2D Turbulence
Gavin Esler	Decaying two-dimensional turbulence undergoes statistical heating
Andrew Gilbert	Fundamentals of vortex dynamics
Laura Cope	Variability of stochastically-driven zonal jets

### Nonlinear waves

<b>NAME</b>	<b>PRESENTATION TITLE</b>
Miguel Onorato	Thermalization and conduction in one-dimensional chains: a wave turbulence approach
Gennady El	Breather gas in the focusing NLS equation: nonlinear spectral theory
Emilian Parau	Nonlinear waves under ice
Stéphane Randoux	Nonlinear propagation of one-dimensional waves: some recent experimental results
Anna Kalogirou	Wave amplification phenomena and a novel wave-energy converter

### Wave interactions and turbulence

<b>NAME</b>	<b>PRESENTATION TITLE</b>
Sergey Nazarenko	Inverse cascade and non-equilibrium condensation in BEC
Christophe Josserand	Finite-time localized singularities as a mechanism for turbulent dissipation
Miguel Bustamante	Exact discrete resonances in the Fermi-Pasta-Ulam-Tsingou system

### Coherent structures and topological excitations

<b>NAME</b>	<b>PRESENTATION TITLE</b>
Renzo Ricca	Quantum vortex dynamics by geometric and topological methods
Andrew Baggaley	Coarse-grained pressure dynamics in superfluid turbulence
Magnus Borgh	Exploring defect topology and non-Abelian vortices in spinor Bose-Einstein condensates

### Talks with overlapping themes

<b>NAME</b>	<b>PRESENTATION TITLE</b>
Thomas Gasenzer	Universal dynamics and nonthermal fixed points in Bose systems

Pierre Suret	Statistical and spectral properties of the modulation instability: experiments and modeling by using soliton gas
Simon Thalabard	Spontaneous stochasticity of shear-layer instabilities
Amit Chattopadhyay	MHD Turbulence in Stochastic Accretion Flows
Hayder Salman	Ordering of Vortex Excitations in a 2D Bose Gas Far From Equilibrium
Thibault Congy	Bidirectional soliton gas