# **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	Thursday	Friday
	(30 <sup>th</sup> October 2019)	(31 <sup>th</sup> October 2019)	(1 <sup>st</sup> November 2019)
09:00-09:30	REGISTRATION AND OPENING	Miguel Onorato	Magnus Borgh
09:30-10:00	Jason Laurie		Thibault Congy
10:00-10:30		Gennady El	Hayder Salman
10:30-11:00	COFFEE BREAK	COFFEE BREAK	COFFEE BREAK
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
12:30-14:00	LUNCH	LUNCH	CLOSING REMARKS  LUNCH
14:00-14:30	Renzo Ricca	Sergey Nazarenko	
14:30-15:00			
15:30-16:00	COFFEE-BREAK	COFFEE-BREAK	
16:00-16:30	Luca Galantucci	Miguel Bustamante	
16:30-17:00	Andrew Baggaley	Christophe Josserand	
17:00-17:30	Amit Chattopadhyay	FREE FOR DISCUSSIONS	
17:30-19:30	POSTER SESSION  DRINKS AND NIBBLES	OR DISCOVER NORWICH TOUR	
19:30		SOCIAL DINNER IN NORWICH	

## **Classical vortex dynamics**

NAME	PRESENTATION TITLE
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

NAME	PRESENTATION TITLE
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

NAME	PRESENTATION TITLE
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**

NAME	PRESENTATION TITLE
Renzo Ricca	Quantum vortex dynamics by geometric and topological methods
Andrew Baggaley	Coarse-grained pressure dynamics in superfluid turbulence
Luca Galantucci	Vortex induced dissipation in thin atomic Josephson Junctions

## Talks with overlapping themes

NAME	PRESENTATION TITLE
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
Magnus Borgh	Exploring defect topology and non-Abelian vortices in spinor Bose-Einstein condensates