

Quantum Turbulence Workshop Timetable

Monday 10 April

- 08.00-08.30 Breakfast at NHMFL
- 08.30-08.45 Welcome
Chair: L'vov
- 08.45-09.15 Lathrop *Kelvin waves, helicity and phase transitions in quantum fluid flows.*
- 09.15-09.45 Irvine *The life of vortex knots and links: the flow of knottiness across scales*
- 09.45-10.15 Brachet *Helicity, topology, and Kelvin waves in reconnecting quantum knots.*
- 10.15-10.45 Coffee
- 10.45-11.15 Summers *Conservation of Writhe Helicity under Anti-Parallel Reconnection*
- 11.15-12.00 Discussion: Barenghi *Reconnections*
- 12.00-13.30 Lunch (Posters)
Chair: Eltsov
- 13.30-14.00 Zieve *Measuring Single Vortex Dynamics in Superfluid Helium*
- 14.00-14.30 Barenghi *Aspects of quantum turbulence in the condensate model*
- 14.30-15.00 Yano *Formation of Quantum Turbulence Generated by a Vibrating Wire in Superfluid 4He*
- 15.00-15.30 Discussion: Sergeev *Behaviour near boundaries*
- 15.30-16.00 Coffee
Chair: Golov
- 16.00-16.30 Walmsley *Motion of electrons along quantized vortices in superfluid 4He*
- 16.30-17.00 Salman *Motion of Electron Bubbles along Vortices in Superfluid Helium-4*
- 17.00-17.30 Eltsov *Vortex wave turbulence in superfluid 3He-B*
- 17.30-18.00 Discussion: Ihas *Open*

Tuesday 11 April

- 08.00-08.30 Breakfast at NHMFL
Chair: Lathrop
- 08.30-09.00 Guo *Flow visualization in superfluid helium: progress, issues, and future Development*
- 09.00-09.30 La Mantia *Particle dynamics in turbulent flows of He II*
- 09.30-10.00 Tsuji *Small particle motions in superfluid HeII: its size effect on particle velocity*

and acceleration

- 10.00-10.30 **Discussion: Guo** *Imaging quantized vortices*
- 10.30-11.00 Coffee
- Chair: Barenghi**
- 11.00-11.20 Varga *Experimental Observation of Intermittency and Kolmogorov 4/5 Law in Grid-Generated Quantum Turbulence*
- 11.20-11.40 Reneuve *Numerical investigation of vortex dynamics in a non-local model of a superfluid*
- 11.40-12.00 Yang *Temporal Decay of Grid Turbulence in He II in a Large Square Channel*
- 12.00-13.30 Lunch (posters)
- 13.30-14.30 Tour of FCAAP
- 14.30-15.30 Tour of NHMFL
- 15.30-16.00 Coffee
- Chair: Baggaley**
- 16.00-16.30 Tsubota *Fully coupled dynamics of the two-fluid model in thermal counterflow in a square channel*
- 16.30-17.00 L ev eque *Lattice Boltzmann simulations of superfluid counterflows in a pipe*
- 17.00-17.30 H anninen *Vortex filament model in superfluid helium: From single reconnection event to counterflow turbulence*
- 17.30-18.00 **Discussion: Vinen** *Grid turbulence*
- 18.30 Workshop Dinner

Wednesday 12 April

- 08.00-08.30 Breakfast at NHMFL
- Chair: Eltsov**
- 08.30-09.00 L'vov *Local and nonlocal turbulent energy transfer, energy spectra and intermittency in superfluid He*
- 09.00-09.30 Kivotides *Physics of finite temperature superfluid He-4 turbulence*
- 09.30-10.00 Pomyalov *Evolution of a turbulent plug in a channel counterflow of superfluid 4He*
- 10.00-10.30 **Discussion: Procaccia** *Closure equations*

10.30-11.00	Coffee	
	Chair: Roche	
11.00-11.30	Schmoranzner	<i>Transition to Turbulence in Oscillatory Flows of Superfluid 4He</i>
11.30-12.00	Tsepelin	<i>Two-dimensional imaging of turbulence using quasiparticles in superfluid $^3\text{He-B}$</i>
12.00-13.30	Lunch (posters)	
	Chair: Walmsley	
13.30-14.00	Roche	<i>Observation of vortex bundles in highly turbulent He II</i>
14.00-14.30	Gibert	<i>Second sound attenuation measurements in the large-scale SHREK experiment and first images from the CryoLEM</i>
14.30-15.00	Laurie	<i>Kelvin-wave turbulence theory for small-scale energy transfer in quantum Turbulence</i>
15.00-15.30	Discussion: Golov	<i>Turbulence in 4He at very low temperatures,</i>
15.30-16.00	Coffee	
	Chair: Hänninen	
16.00-16.30	Vilesov	<i>Extreme turbulence and vorticity in 4He jets and droplets</i>
16.30-17.00	Baggaley	<i>Anomalous diffusion of quantum vortices</i>
17.00-17.30	Discussion of future directions (Vinen)	
17.30-18.00	Closing remarks	