Agenda for Closing Workshop of the SPP 1881 2 May to 5 May 2023 Lufthansa Conference Center Seeheim

Tuesday, 2nd of May 2023			
12:30	Arrival (room check-in: 15:00)		
13:00 - 13:45	Lunch at Seeheim's eat & meet		
14:00 - 14:15	Welcome and Introduction, Jörg Schumacher		
14:15 - 15:15	Keynote Lecture: Jean-Luc Thiffeault	(Madison)	
	Non-uniform mixing	,	
15:15 - 15:45	Kathrin Padberg-Gehle	(Lüneburg)	
	Lagrangian aspects of turbulent superstructures: numerical	analysis of long-term	
	dynamics and transport properties		
15:45 - 16:15	Coffee Break		
16:15 - 16:45	Moritz Linkmann	(Edinburgh)	
	Symmetry-reduced low-dimensional representation of large-s	scale dynamics in the	
	asymptotic suction boundary layer		
17:15 – 17:45	Michael Wilczek and Fabián Álvarez-Garrido	(Bayreuth)	
	Towards a low-dimensional characterization of turbulent sup	perstructures in simple	
	shear flows		
17:45 – 18:15	Olga Shishkina	(Göttingen)	
	Unifying heat transport ansatz for the transitions in rotating Rayle	eigh-Benard convection	
	and beyond		
19:00	Dinner at Seeheim's eat & meet		
<u>Wednesday,</u>	3rd of May 2023		
	Breakfast		
08:30 - 09:30	Keynote Lecture: Kerstin Avila	(Oldenburg)	
	Particle dynamics and flow instabilities in particle-laden pipe flow		
09:30 – 10:00	Daniel Schanz	(Göttingen)	
	Large-scale 3D LPT measurements of turbulent flow structures	s: recent developments	
40.00 40.00	and applications to TBL and pipe flows		
	Coffee Break	(14, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	
10:30 – 11:00	Andrea Andreolli	(Karlsruhe)	
	The interplay between superstructures and wall shear stress fluctures and wall shear stress fluctures.		
11:00 – 11:30	Martin Oberlack	(Darmstadt)	
44.00 40.00	On a new class of subcritical linear 3D oblique modes – an extens		
11:30 – 12:00	Bettina Frohnapfel	(Karlsruhe)	
40-45 40-00	Drag contribution of large-scale structures in turbulent wall-bou	inaea tiows	
	Lunch at Seeheim's eat & meet	(O(===f====1)	
13:30 – 14:30	Keynote Lecture: Beverley J. McKeon	(Stanford)	
44.00 45.00	What makes turbulence tick? Characterizing nonlinear interaction		
14:30 – 15:00	Markus Holzner	(Zürich)	
15:00 15:20	Entrainment at multi-scales in shear-dominated and Rayleigh-Ta		
15.00 – 15.30	Stefan Richter Experiments on your large structures in turbulant pine flow	(Cottbus)	
15.20 16.00	Experiments on very large structures in turbulent pipe flow		
	Coffee Break	(7:: riob)	
16:00 – 16:30	Bálint Kaszás	(Zürich)	
10.20 17.00	Analysis and control of coherent structures and coherent states	(Daymay th)	
10:30 – 17:00	Amir Shahirpour	(Bayreuth)	
	Interactions between large-scale coherent and small-scale in	iconerent structures in	
17:00 – 17:30	turbulent pipe flow	(Ilmonau)	
17.00 – 17.30		(Ilmenau)	
	Experimental investigation of turbulent Superstructures in Rayle and the influence of the thermal boundary conditions	ayır-benaru convection	
17:40 – 18:00	· · · · · · · · · · · · · · · · · · ·		
11.10 10.00	Croup i noto		

Dinner at Seeheim's eat & meet

19:00

Thursday, 4t	h of May 2023	
	Breakfast	
08:30 - 09:30	Keynote Lecture: Susanne Horn	(Coventry)
	Large-scale circulation modes in turbulent liquid metal convection	
09:30 – 10:00) Behdad Ghaffari	(München)
	Scalable visual analysis of turbulent superstructures	
	Coffee Break	
10:30 – 11:00	Florian Heyder	(Ilmenau)
	Towards a Machine Learning-based Parameterization of the Layer	
11:00 – 11:30		(Bremen)
	Long-term dynamics of large-scale structures in turbulent wall-b	
11:30 – 12:00	Detlef Lohse	(Enschede)
40.45 40.04	Melting of ice	
	Lunch at Seeheim's eat & meet	(0) (1)
13:30 – 14:30	Keynote Lecture: Andrea Beck	(Stuttgart)
44.00 45.00	Towards data-driven turbulence simulations	(D
14:30 – 15:00		(Dresden)
15:00 15:20	Experimental investigation of superstructures in turbulent liquid Andrei Teimurazov	
15.00 – 15.30	Heat transfer and flow regimes in liquid metal magnetoconve	(Göttingen)
45.00 40.00	magnetic field	ection with a nonzonial
	Coffee Break	(3.4
16:00 – 16:30		(Magdeburg)
	mPOD of very-large-scale motions in turbulent channel flow and with the flame	
16:30 – 17:00	Holger Theisel	(Magdeburg)
	Autonomous Particles for In-Situ-Friendly Flow Map Sampling	
17:00 – 17:30	Philipp Vieweg	(Ilmenau)
	Large-scale flow structures in turbulent Rayleigh-Bénard conver formation, and role in material transport	
17:30 – 18:00		(Enschede)
	Convection in melt ponds	
19:00	Dinner at Seeheim's eat & meet	
Friday, 5th o	f May 2023	
	Breakfast	
08:30 - 09:30	Keynote Lecture: Christina Vanderwel	(Southampton)
	Turbulence in Urban Aerodynamics	(
09:30 - 10:00	Christian Kähler	(München)
	What we have learned from 6 years of turbulent boundary	
	atmospheric wind tunnel	•
10:00 - 10:30	Coffee Break	
10:30 - 11:00) Stephan Weiss	(Göttingen)
	Analysis of Coherent Structures in Turbulent Rayleigh-Bénard	Convection by Time-
	Resolved Lagrangian Particle Tracking and Temperature Sensit	
11:00 – 11:30) Jörg Schumacher	(Ilmenau)
	Quantum Machine Learning algorithms for turbulent convection	flows

Quantum Machine Learning algorithms for turbulent convection flows
11:30 – 11:40 Closing, Jörg Schumacher

11:50 - 12:50 Lunch at Seeheim's eat & meet

Departure

13:00