

Warnemuende Turbulence Days 2019
Workshop Schedule,
8 – 12 December, 2019



Sunday, 8 December	
19:00 h - ...	Icebreaker meeting at „Alter Fritz“, Warnowufer 65, 18057 Rostock
Monday, 9 December	
09:01 h	Departure Rostock Main Station (Hbf) leaving from track 3 for all participants 10:54 h arrival in Lauterbach Mole
11:00 + 11:30 h	boat transfer to Vilm
11:00 - 12:30 h	<i>Check-in</i>
12:30 - 13:30 h	<i>Lunch</i>
"Ocean mixing and its efficiency"	
13:30 – 14:00 h	Opening and workshop information
SESSION I	
14:00 – 15:00 h	Inga Koszalka: Disentangling ocean mixing from Lagrangian trajectories
15:00 – 15:30 h	Evridiki Chrysagi: Submesoscale Processes and Mixing in a Semi-Enclosed Basin: The Case of the Baltic Sea
15:30 - 16:00 h	Sandra Tippenhauer: Frontal processes and extreme high chlorophyll a values investigated with an AUV
16:00 - 17:00 h	<i>Coffee break</i>
17:00 - 17:30 h	Jen-Ping Peng: Frontal instability and energy dissipation in a submesoscale upwelling filament
17:30 - 18:00 h	Peter Holtermann: Lateral transport, not vertical mixing, is the most important oxygen transport process for the hypoxic transition zone in the Baltic Sea
18:00 - 19:15 h	<i>Dinner</i>
19:30 – 20:30h	Social event - tbd
20:30 - ...	Posters, drinks and snacks
POSTER SESSION (All evenings)	
Victor Avsarkisov:	On the stratified turbulence regime in the Mesosphere
Hans Burchard:	A universal law of estuarine mixing
Serhat Can:	Scale Invariant Diffusion Effects on a Mechanistic GCM
Stephan Deschner:	High Resolution Turbulence Measurements
Carsten Eden:	Gravity wave emission from balanced flow by shear instability
Thomas Eriksen:	Diapycnal diffusivity induced by the breaking of lee waves
Knut Klingbeil:	New strategies to deal with spurious numerical mixing in ocean models
Xaver Lange:	Inversions of estuarine circulation are frequent in a weakly tidal estuary with variable wind forcing and seaward salinity fluctuations
Giovanni Leuzzi	Dispersion of microplastics in the Western Mediterranean Sea
Julia Muchowski:	Comparison of turbulence measurements from broadband echo sounder to microstructure profiles of stratified flow over steep seafloor topography in the Baltic Sea

Kesava Prasad Ramachandran:	Horizontal Kinetic Energy spectrum and Spectral Fluxes Simulated by Non-Hydrostatic ICON-IAP	
Lars Umlauf:	Diffusive convection under rapidly varying conditions	
Anna van der Kaaden:	The interplay between internal tides and coral mound growth	
Anna Wünsche:	Investigating the Ems Estuary dynamics	
Tuesday, 10 December		
07:30 - 09:00 h	<i>Breakfast</i>	
SESSION II		
09:30 - 10:30 h	Friederike Pollmann:	Toward a spectral characterization of the global ocean's internal wave field in observations and models
10:30 - 11:00 h	Gunnar Voet:	Observations of large internal waves and strong turbulence over deep submarine ridges in the Western North Pacific
11:00 - 11:30 h	<i>Coffee break</i>	
11:30 - 12:00 h	Dirk Olbers:	On PSI interactions in internal gravity wave fields and the decay of baroclinic tides
12:00 - 12:30 h	Kevin Lamb:	Tide-Topography Interaction and Currents: Asymmetries in Internal Wave Breaking
12:30 - 13:30 h	<i>Lunch break</i>	
13:30 - 15:30 h	<i>Free discussion time - walking around Vilm</i>	
15:30 - 16:00 h	<i>Coffee break</i>	
SESSION III		
16:00 - 16:30 h	Cynthia Bluteau:	Implications of turbulence mixing processes on supplying nutrients into a large Estuary during winter
16:30 - 17:00 h	Marius Becker:	Effects of mud-induced stratification on sediment transport in a hyperturbid tidal channel
17:00 - 17:30 h	Andreas Malcherek:	Modelling hyperturbid estuaries using the k-omega-model in a holistic approach
17:30 - 18:00 h	Florian Kokoszka:	Microstructure observations of the water column's structure during a summer-to-winter destratification period in the coastal marine ecosystem of the Gulf of Naples
18:00 - 19:15 h	<i>Dinner</i>	
19:30 - 20:30 h	Karan Venayagamoorthy:	Turbulent mixing in oceanic flows: challenges and insights for improved prediction
20:30 h - ...	Posters, drinks and snacks...	
Wednesday, 11 December		
07:30 - 09:00 h	<i>Breakfast</i>	
SESSION IV		
09:30 - 10:30 h	Yueng-Djern Lenn:	Eastern Arctic Ocean Diapycnal Heat Fluxes through Large Double-Diffusive Steps
10:30 - 11:00 h	Kristin Schulz:	Turbulence, heat fluxes and the thermohaline structure along the eastern Arctic continental slopes in 2018
11:00 - 11:30 h	<i>Coffee break</i>	
11:30 - 12:00 h	Philip Leadbitter:	Using Thorpe scaling to estimate turbulent kinetic energy dissipation rates with 512 Hz thermistor data from Seagliders

12:00 - 12:30 h	Bieito Fernández-Castro:	Extremely low mixing efficiency in a strongly seasonally stratified perialpine lake: implications for the persistence of a thin layer of harmful cyanobacteria
12:30 -13:30 h	<i>Lunch break</i>	
13:30 – 15:30 h	<i>Free discussion time - walking around Vilm</i>	
15:30 – 16:00 h	<i>Coffee break</i>	
16:00 - 17:00 h	William D. Smyth:	Marginal instability and the efficiency of mixing
17:00 – 18:00 h	Glenn Carter	Mixing coefficients in a weakly stratified abyssal passage
17:30 - 18:00 h	Justine McMillan:	Quality Control and Statistical Uncertainty of Turbulence Microstructure Measurements
18:00 – 19:15 h	<i>Dinner</i>	
SESSION V		
19:30 - 20:30 h	Dmitrii Mironov:	Non-Realizability of Truncated Turbulence Closure Models: Origin of Ill Behaviour and Remedial Measures
20:30 - ...	Posters, drinks and snacks	
Thursday, 12 December		
07:30 - 09:00 h	<i>Breakfast</i>	
09:00 - 10:00 h	Qing Li:	Modeling the ocean surface boundary layer vertical mixing by Langmuir turbulence
10:00 - 10:30 h	Brandon Reichl:	A surface boundary layer parameterization with a constrained potential energy conversion rate for climate simulations
10:30 - 11:00 h	<i>Coffee break</i>	
10:30 - 11:00 h	Luke van Roekel:	A New Eddy Diffusive Assumed Distribution Closure for Ocean Models
11:00 - 11:30 h	Marvin Lorenz:	Numerical study of the exchange flow of the Persian Gulf using an extended Total Exchange Flow analysis framework
12:30 – 13:30 h	<i>Lunch</i>	
13:30 - 14:30 h	Check-out	
14:05 – 14:35 h	Boat transfer to Lauterbach	
15:00 h	train departure from Lauterbach Mole 16:55 h train arrival at Rostock Hbf	

Organization:

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