

Eddy-Wave Meeting, 14-16 Feb 2023, Hamburg

Time slot	14 Feb	15 Feb	16 Feb
9:00-9:15	Registration	Registration	Registration
9:15-9:30	Welcome Introduction	Registration	Registration
<i>Session</i>	<i>Eddy-Wave Interactions</i>	<i>Waves and Instabilities</i>	<i>Submesoscale and Frontal Dynamics</i>
9:30-10:00	Kevin Lamb	Jacques Vanneste	Jen-Ping Peng
10:00-10:20	Adrien Bella*	Jim Thomas*	René Schubert
10:20-10:40	Clément Vic*	Dirk Olbers*	Pauline Tedesco
10:40-11:00	Igor Maingonnat*	Yohei Onuki	Nils Brüggemann
11:00-11:30	Break	Break	Break
11:30-11:50	Peter Dennert	Stephanie Waterman	Julian Mak*
11:50-12:10	Robin Rolland*	Remi Tailleux	Marcel Oliver
12:10-12:30	Arne Bendinger*	Michael Cox	Manita Chouksey + Silvano Rosenau
12:30-12:50	Vassili Kitsios*	Fabiola Trujano-Jimenez*	Florian Schuette
12:50-13:10	Session Q&A	Session Q&A	Session Q&A
13:10-14:10	Lunch	Lunch	Lunch
<i>Session</i>	<i>Eddy-Wave Parameterizations</i>	<i>Theoretical and Numerical Methods</i>	<i>Energetic Interactions and Cascades</i>
14:10-14:40	Jenny Chang*	Laure Zanna*	Nedjeljka Zagar (14:10-14:30)
14:40-15:00	Rosie Eaves	Han Wang*	Gaspard Geoffroy (14:30-14:50)
15:00-15:20	Stephan Juricke	Hossein Kafiabad	Carina Regina de Macedo* (14:50-15:10)
15:20-15:40	Georg Sebastian Voelker	Jeffrey Early	Sebastian Essink* (15:10-15:30)
			Group Photo (15:30-15:40)
15:40-16:10	Break	Break	Break
16:10-16:30	Casimir de Lavergne*	Pascale Lelong*	Julia Draeger-Dietel
16:30-16:50	Friederike Pollmann	Ashwita Chouksey	Christopher Danek
16:50-17:10	Lois Baker	Lars Czeschel	Session Q&A + Farewell (16:50-17:20)
17:10-17:30	Session Q&A	Session Q&A	
17:30-18:30	Poster Session	Poster Session	End
19:30--	Gathering at a local pub	Conference Dinner	

*Online talks

Eddy-Wave Meeting, 14 Feb 2023, Day 1 (*Online talks)

Time slot	Speaker	Talk title
9:00-9:15	Registration	
9:15-9:30	Welcome and Introduction	
<i>Session</i>	<i>Eddy-Wave Interactions</i>	
	<i>Session Chairs: Friederike Pollmann, Zoi Kourkouraidou</i>	
9:30-10:00	Kevin Lamb	<i>Internal-wave generation by tide-topography interactions in the presence of background currents</i>
10:00-10:20	Adrien Bella*	<i>Internal tides energy life cycle in the North Atlantic</i>
10:20-10:40	Clément Vic*	<i>Internal tide beam generation by an abyssal hill of the Mid-Atlantic Ridge</i>
10:40-11:00	Igor Maingonnat*	<i>Study of non-linear interactions between meso-scale turbulence and internal tides using resolvent analysis</i>
11:00-11:30	Break	
	<i>Session Chairs: Kevin Lamb, Pablo Sebastia Saez</i>	
11:30-11:50	Peter Dennert	<i>Evolution of a tidal beam in an eddying ocean flow</i>
11:50-12:10	Robin Rolland*	<i>The role of mesoscale-wave interactions on energy transfers in the Sicily Channel area</i>
12:10-12:30	Arne Bendinger*	<i>Eddy-internal tide interactions around New Caledonia in the Southwestern Tropical Pacific: A SWOT CalVal site</i>
12:30-12:50	Vassili Kitsios*	<i>Subgrid parameterization of eddy, meanfield and topographic interactions in simulations of the Antarctic Circumpolar Current</i>
12:50-13:10	Session Q&A	
13:10-14:10	Lunch	
<i>Session</i>	<i>Eddy-Wave Parameterizations</i>	
	<i>Session Chairs: Nedjeljka Zagar, Ekaterina Bagaeva</i>	
14:10-14:40	Jenny Chang*	<i>Remote versus local impacts of energy backscatter on the Northwest Atlantic SST biases in a global ocean model</i>
14:40-15:00	Rosie Eaves	<i>An energy and enstrophy informed parameterization scheme for eddy potential vorticity fluxes</i>
15:00-15:20	Stephan Juricke	<i>Simulating ocean eddies: Development and evaluation of viscous and backscatter parametrizations</i>
15:20-15:40	Georg Sebastian Voelker	<i>MS-GWaM – A three dimensional transient parameterization for internal gravity waves in atmospheric models</i>
15:40-16:10	Break	
	<i>Session Chairs: Jonas Nycander, Peter Dennert</i>	
16:10-16:30	Casimir de Lavergne*	<i>A parameterization of local and remote tidal mixing</i>
16:30-16:50	Friederike Pollmann	<i>The horizontal direction of the barotropic-to-baroclinic tidal energy transfer: global computations for the M2 tide's first mode and implications for mixing parameterizations</i>
16:50-17:10	Lois Baker	<i>The impact of representations of realistic topography on parameterised oceanic lee wave energy flux</i>
17:10-17:30	Session Q&A	
17:30-18:30	Poster Session	
19:00--	Gathering at a local pub (optional)	

Eddy-Wave Meeting, 15 Feb 2023, Day 2 (*Online talks)

Time slot	Speaker	Talk title
9:00-9:30	Registration	
<i>Session</i>	<i>Waves and Instabilities</i>	
	<i>Session Chairs: Carsten Eden, Ankitkumar Patel</i>	
9:30-10:00	Jacques Vanneste	<i>The imprint of ocean currents on surface gravity waves</i>
10:00-10:20	Jim Thomas*	<i>Turbulent transition of a flow from small to $O(1)$ Rossby numbers</i>
10:20-10:40	Dirk Olbers*	<i>The parametric IDEMIX model</i>
10:40-11:00	Yohei Onuki	<i>Breaking of internal waves parametrically excited by ageostrophic anticyclonic instability</i>
11:00-11:30	Break	
	<i>Session Chairs: Jacques Vanneste, Marcel Oliver</i>	
11:30-11:50	Stephanie Waterman	<i>Exploring eddy ellipse geometry as metrics of eddy-mean flow interactions in a mixed instability jet</i>
11:50-12:10	Remi Tailleux	<i>The physical basis for the specification of the lateral stirring directions in rotated diffusion tensors</i>
12:10-12:30	Michael Cox	<i>Inertia-gravity-wave diffusion by geostrophic turbulence: the role of flow time dependence and stratification change</i>
12:30-12:50	Fabiola Trujano-Jimenez*	<i>Two-dimensional Ekman-Inertial instability</i>
12:50-13:10	Session Q&A	
13:10-14:10	Lunch	
<i>Session</i>	<i>Theoretical and Numerical Methods</i>	
	<i>Session Chairs: Alexa Griesel, Rajka Juhrendt</i>	
14:10-14:40	Laure Zanna*	<i>Leveraging theory and machine learning for mesoscale eddy parameterizations</i>
14:40-15:00	Han Wang*	<i>Dynamical insights from frequency-filtered Lagrangian structure functions</i>
15:00-15:20	Hossein Kafiabad	<i>Computing Lagrangian means without particle tracking</i>
15:20-15:40	Jeffrey Early	<i>Exact expressions for available potential energy and available potential vorticity</i>
15:40-16:10	Break	
	<i>Session Chairs: Jen-Ping Peng, Georg Sebastian Voelker</i>	
16:10-16:30	Pascale Lelong*	<i>Can inertia-gravity waves impact the evolution of geostrophic flows?</i>
16:30-16:50	Ashwita Chouksey	<i>Long lived deep coherent vortices in the Atlantic Ocean</i>
16:50-17:10	Lars Czeschel	<i>On the impact on wind and surface waves on balanced fronts in the oceanic surface mixed layer</i>
17:10-17:30	Session Q&A	
17:30-18:30	Poster Session	
18:30--	Conference Dinner at the meeting venue	

Eddy-Wave Meeting, 16 Feb 2023, Day 3 (*Online talks)

Time slot	Speaker	Talk title
9:00-9:30	Registration	
<i>Session</i>	<i>Submesoscale and Frontal Dynamics</i>	
	<i>Session Chairs: Lars Czeschel, Moritz Epke</i>	
9:30-10:00	Jen-Ping Peng	<i>Diurnal variability of frontal dynamics, instability, and energy dissipation</i>
10:00-10:20	René Schubert	<i>Estimating the submesoscale oceanic inverse cascade from satellite along-track altimetry</i>
10:20-10:40	Pauline Tedesco	<i>Spatio-temporal characteristics of winter mixed layer turbulence in an energetic oceanic zone</i>
10:40-11:00	Nils Brüggemann	<i>Dissipation in ageostrophic turbulence from a submesoscale resolving simulation of the North Atlantic</i>
11:00-11:30	Break	
	<i>Session Chairs: Nils Brüggemann, Yohei Onuki</i>	
11:30-11:50	Julian Mak*	<i>On constraining the mesoscale eddy energy dissipation time-scale</i>
11:50-12:10	Marcel Oliver	<i>Quasi-convergence of optimal balance by nudging</i>
12:10-12:30	Manita Chouksey + Silvano Rosenau	<i>On flow decomposition in realistic ocean scenarios</i>
12:30-12:50	Florian Schuette	<i>Observations of near-inertial wave interaction with coherent anticyclonic eddies</i>
12:50-13:10	Session Q&A	
13:10-14:10	Lunch	
<i>Session</i>	<i>Energetic Interactions and Cascades</i>	
	<i>Session Chairs: Stephan Juricke, Julia Draeger-Dietel</i>	
14:10-14:30	Nedjeljka Zagar	<i>How white is the sky?</i>
14:30-14:50	Gaspard Geoffroy	<i>Energy of the semidiurnal internal tide from Argo data compared with theory</i>
14:50-15:10	Carina Regina de Macedo*	<i>Spatial and temporal variability of mode-1 and mode-2 internal solitary waves from MODIS/TERRA sunglint off the Amazon shelf</i>
15:10-15:30	Sebastian Essink*	<i>Float measurements of near-inertial energy, energy-flux and dissipation east of Japan</i>
15:30-15:40	Group Photo	
15:40-16:10	Break	
	<i>Session Chairs: Manita Chouksey, Fraser Goldsworth</i>	
16:10-16:30	Julia Draeger-Dietel	<i>Evidence of a dual kinetic energy cascade by surface drifter observation in the Walvis Ridge Region</i>
16:30-16:50	Christopher Danek	<i>Decadal variability of eddy temperature fluxes in the Labrador Sea</i>
16:50-17:20	Session Q&A + Farewell	
17:30	END	

Poster session 14-15 Feb 2023, (Days 1&2)

Time slot	Speaker	Poster title
<i>Online posters (14 Feb)</i>		
17:30-18:00	Ashley J. Barnes*	<i>Bottom generated internal waves from surface wind forcing</i>
18:00-18:30	Jeffrey Uncu*	<i>Internal tide extraction using deep learning with spectral loss</i>
<i>Offline posters (14 and 15 Feb)</i>		
17:30-18:30	Ekaterina Bagaeva	<i>Parametrisation of mesoscale eddies via kinetic energy backscatter and interaction with GM parametrisation</i>
17:30-18:30	Fraser Goldsworth	<i>Interactions between symmetric and baroclinic instabilities in the Irminger Sea</i>
17:30-18:30	Laura Gómez Navarro	<i>The effect of tide-induced motions on the surface dispersion of floating material</i>
17:30-18:30	Mariona Claret	<i>Wave-eddy interactions in the Gulf of Lion: Bridging ocean general circulation models and process ocean simulations</i>
17:30-18:30	Ashwita Chouksey	<i>Changes in global ocean circulation due to isopycnal diffusion</i>
17:30-18:30	Moritz Epke	<i>Overturning of mixed layer eddies in a submesoscale resolving simulation of the North Atlantic</i>
17:30-18:30	Pablo Sebastia Saez	<i>Interaction between internal gravity waves and meso-scale eddies</i>
17:30-18:30	Rajka Juhbandt	<i>Using neural networks and high-resolution simulations to improve mesoscale eddy representation in ocean models</i>
17:30-18:30	Zoi Kourkouraidou	<i>Interactions of low-mode internal tides with mesoscale eddies in a high-resolution ocean model (ICON-O)</i>
17:30-18:30	Noé Lahaye	<i>Incoherence of the internal tide in the North Atlantic Ocean</i>
17:30-18:30	Jan Niklas Dettmer	<i>Spectral resolution of the ocean's Lorenz energy cycle</i>