

## Workshop Schedule

| Sunday,<br>21.09., 19:00 | Icebreaker meeting at "Alte  | er Fritz", Warnowufer 65, 18057 Rostock  |  |
|--------------------------|--|--|--|
|                          | M  | onday, 22.09.  |  |
| 08:45-11:30              | 08:45 h Meeting Point "Platz der Freundschaft" next to Rostock Station (Hbf) (google maps) |  |  |
|                          | 09:00 h Departure by bus   |  |  |
|                          | 10:50 h arrival at Lauterbach harbour  |  |  |
|                          | 11:00 h boat transfer to Vilm  |  |  |
|                          | 11:30 h arrival on Vilm  |  |  |
| 11:30                    | check-in   |  |  |
| 12:30                    | lunch  |  |  |
| 14:00                    | WELCOME  |  |  |
| 14:30–15:30              | Nicole Jones   | Turbulent mixing in an energetic coastal ocean   |  |
| 15:30-16:00              | coffee break   |  |  |
| 16:00-16:30              | Simon Reifenberg   | Mixing Under Melting Sea Ice: Observed Links of Tidally-Generated Internal Waves and Turbulence in the Seasonal Halocline                        |  |
| 16:30-17:00              | Jennifer MacKinnon   | Phenomenology of the Finescale   |  |
| 17:00-17:30              | Bieito Fernández Castro  | Contrasting ocean mixing regimes observed with turbulence profiling floats   |  |
| 17:30-18:00              | Leo Middleton  | Abyssal Recipes in a Warming Ocean   |  |
| 18:00                    | dinner   |  |  |
| 19:30                    | Poster Elevator Presentations  |  |  |
| 19:45                    | Poster Session I (see last page)   |  |  |
|                          | Tu   | lesday, 23.09.   |  |
| 07:30-09:00              | breakfast  |  |  |
| 09:00-10:00              | Eric D'Asaro   | NonLocal Transport in the Ocean Boundary Layer   |  |
| 10:00-10:30              | Isabelle Giddy   | Waves explain observed similarity scaling of turbulence dissipation in the Southern Ocean  |  |
| 10:30-11:00              | coffee break   |  |  |
| 11:00-11:30              | Alejandro Cifuentes-Lorenzen   | Defining the depth of the TKE injection in the wave boundary layer   |  |
| 11:30-12:00              | Jeff Carpenter   | The continuous spectrum of surface gravity waves on a sheared current  |  |
| 12:00-12:30              | Qing Li  | Large Eddy Simulations of Stabilizing Effects Induced by Opposing Eulerian Current and Stokes Drift in an Idealized Ocean Surface Boundary Layer |  |
| 12:30-13:30              | lunch  |  |  |

| 14:00-14:30 | Tobias Kukulka                    | Interactions between cross-channel flows and Langmuir turbulence in an estuary: Insights from large eddy simulations                            |  |
|-------------|-----------------------------------|---|--|
| 14:30-15:00 | Ramsey Harcourt                   | Transport and Anisotropy of Turbulence near a free surface  |  |
| 15:00-15:30 | Lloyd Reese                       | Mixing and Water Mass Transformation in Tidal Estuaries   |  |
| 15:30-16:00 | coffee break                      | coffee break  |  |
| 16:00-17:00 | Pascale Lelong                    | Born of Wind, Broken at Depth: The Cradle-to-Grave Journey of Near-Inertial Waves   |  |
| 17:00-17:30 | Takashi Ijichi                    | Phase-locked internal-wave triads observed in the Izu-Ogasawara Ridge: Implications for interplay between tides and winds                       |  |
| 17:30-18:00 | Hossein Kafiabad                  | Interaction of near-inertial waves with mesoscale and submesoscale vortical structures  |  |
| 18:00       | dinner                            | dinner  |  |
| 19:30       | Poster Elevator Presentation      | Poster Elevator Presentations   |  |
| 19:45       | Poster Session II (see last page) |   |  |
|             | V                                 | Vednesday, 24.09.   |  |
| 07:30-09:00 | breakfast                         |   |  |
| 09:00-10:00 | Ruth Musgrave                     | The role of superinertial coastally trapped waves in tidal energy pathways  |  |
| 10:00-10:30 | Harper Simmons                    | Subinertial tidal forcing of turbulence and mixing at the Jan Mayen Ridge   |  |
| 10:30-11:00 | coffee break                      |   |  |
| 11:00-11:30 | Leif Thomas                       | Interactions of internal waves with submesoscale currents in the bottom boundary layer  |  |
| 11:30-12:00 | Evridiki Chrysagi                 | Genesis of submesoscale motions over sloping topography during storms: Insights from the Baltic Sea   |  |
| 12:00-12:30 | Miriam Sterl                      | The influence of oceanic bottom slopes on Lagrangian and Eulerian eddy diffusivities in a two-layer model                                       |  |
| 12:30-13:30 | lunch                             | lunch   |  |
| 14:00-14:30 | free time                         | free time   |  |
| 14:30-15:30 | Maarten Buijsman                  | The decay of the low-mode internal tide due to near-<br>resonant wave-wave interactions in a global ocean<br>simulation                         |  |
| 15:30-16:00 | Lois Baker                        | Near-resonant generation of internal tide superharmonics: comparing theoretical predictions with a global ocean model                           |  |
| 16:00       | coffee break                      | coffee break  |  |
| 16:30-18:00 | free time                         | free time   |  |
| 18:00       | dinner                            |   |  |
| 19:30-20:00 | Kurt Polzin                       | Mesoscale Eddy - InternalWave Coupling. III. The End of the<br>Enstrophy Cascade and Maintenance of Gyre Scale Potential<br>Vorticity Gradients |  |
|             |                                   | Thursday, 25.09.  |  |
| 07:30-09:00 | breakfast                         |   |  |
| 09:00-10:00 | Triantaphyllos Akylas             | Broadband small-scale instabilities of internal gravity-inertial waves  |  |

| 10:00-10:30 | Georg Sebastian Völker  | Triad interactions of internal gravity waves in the atmosphere under slowly varying flow conditions |
|-------------|---|---|
| 10:30       | coffee break  |   |
| 11:00-11:30 | Thomas Christian Vandamme   | DNS of two-dimensional gravity-wave break-up near critical levels                                   |
| 11:30-12:00 | Dirk Olbers   | Lagrange's view of wave-wave interactions   |
| 12:00-12:30 | Noel Brizuela   | Poleward shifts in inertial pumping under global warming  |
| 12:30-13:30 | lunch   |   |
| 13:30-16:00 | 13:30 h boat transfer from Vilm to Lauterbach 14:00 h departure by bus to Rostock 15:45 h arrival at Meeting Point "Platz der Freundschaft" next to Rostock Station (Hbf) (google maps) 16:00 h Goodbye |   |

## Monday, 22.09. Poster Session I

Roy Barkan An unprecedented view of ocean currents from geostationary satellites

Cai Maitland-Davies Tracer transport with Lagrangian mean velocities

Berkay Basdurak Mixing and internal waves in a non-tidal, narrow and stratified strait

Kerstin Bergentz Waves and stratified turbulence in the Bay of Bengal

Grete Boskamp Buoyant gravity currents triggered by a collapsing mid-latitude submesoscale front

Emelie Breunig Surface Mixed Layer Response to Forcing in the Labrador Sea

Hans Burchard A short review on estuarine mixing principles

Giovanni Dematteis Interacting internal waves explain global patterns of interior ocean mixing

Prajwal Jadhav Characterizing Deep Cycle Turbulence in the Equatorial Undercurrent with Statistical Turbulence Models

Kiera Lowman Climatic Impacts of the Vertical Distribution of Diapycnal Mixing in the Ocean

## Tuesday, 23.09. Poster Session II

Giulio Meille Turbulence and Mixing in Subducting Alaskan Coastal Water on the Chukchi-Beaufort Slope

James O'Donnell The Role of Vertical Mixing in the Hypoxic Zone of a Large Estuary

Ole Pinner Importance and Variability of internal-wave-induced dissipation rates in the Weddell Sea Bottom Water gravity current

Lina Rotermund Near-inertial waves in a high-latitude channel

Pablo Sebastia Saez Wave-wave interactions within a typical internal gravity wave spectrum in the ocean

Michal Shaham Spectral Flux Decomposition in a Wind-Driven Channel Flow with Near-Inertial Waves

Amit Tandon Near-Inertial Wave (NIW) propagation in curved oceanic fronts - when does curvature matter?

Lars Umlauf Cross-front wind forcing of a dense submesoscale filament

Han Wang Synergizing Surface Fields in a Deep-learning Extraction of Internal Tides

Yang Wang Agulhas rings enhance dissipation of internal tides