

**TAV-PIRATA/TRIATLAS MEETING****Banyuls sur mer****Monday 16 October 2023****9h-9h30: WELCOME OF THE PARTICIPANTS****9h30-11h00 OCEAN DYNAMICS 1**

1. Seasonal cycle of mixing and upward nutrient supply in the equatorial Atlantic cold tongue  
**Peter Brandt**
2. Cold Tongue Mixing  
**James Moum**
3. Coastal trapped waves and tidal mixing control primary production in the tropical Angolan upwelling system  
**Mareike Körner**
4. Mesoscale dynamics off the Congo River in the Gulf of Guinea and its impact on the exchange of waters between coastal and open ocean.  
**Camille Cardot**
5. Timescales of Upper-ocean Shear and Instability from PIRATA Moorings in the ITCZ and Trade Wind Regions  
**Jonathan Christophersen**
6. Modulation of equatorial currents and Tropical Instability Waves during the 2021 Atlantic Niño  
**Franz Philip Tuchen**

**11h00-11h30 Coffee Break****11h30-12h30 OCEAN DYNAMICS 2**

7. Seasonal dynamics of Congolese coastal upwelling  
**Roy Dorgeless Ngakala**
8. Evaluation and optimization of numerical parametrizations of the ocean mixed layer based on PIRATA observations in the equatorial Atlantic Ocean  
**Florent GASPARI**
9. Mixing processes in the upper tropical Atlantic: An event data base for evaluating vertical mixing parameterizations in Earth System Models  
**Marcus Dengler**
10. THE COLD AND WARM INTERMEDIATE CONTRIBUTIONS TO THE EASTERN EDGE OF THE SOUTH ATLANTIC SUBTROPICAL GYRE  
**Anna Olivé Abelló (virtual)**

**13h00-14h00 Lunch****14h00-14h30 OCEAN DYNAMICS 3**

11. Using in-situ observations from the EUREC4A-OA/ATOMIC campaigns to characterize latent heat flux spatio-temporal variability in the north-west tropical Atlantic  
**Pablo Fernández**
12. Adjustment of the Marine Atmospheric Boundary-Layer by the North Brazil Current during the EUREC4A-OA Experiment  
**Hervé Giordani**

**14h30-15h30 CLIMATE VARIABILITY 1**

1. Predicting Atlantic and Benguela Niño events with deep learning  
**Marie-Lou Bachèlery**
2. Winter Atlantic El Niño as a precursor of tropical basin interactions and its impact on tropical Atlantic chlorophyll-a  
**Elena Calvo-Miguélez**
3. Reducing biases in low cloud cover over the tropical Atlantic in the Norwegian Earth System Model  
**Richard Davy**
4. South Atlantic Anti-Cyclone as driver for Atlantic Nino's  
**Noel Keenlyside**

**16h00-16h30 POSTER TALKS #1****15h30-16h00 Coffee Break****16h30-18h00 POSTER SESSION #1 (OCEAN DYNAMICS)**

1. Observation-based study of vertical velocities within the global ocean thermocline: interannual variability and subsequent tracer fluxes.  
**Diego Cortés Morales (virtual)**
2. Internal tides off the Amazon shelf: importance for the structuring of the ocean's temperature  
**Fernand Assene**
3. Coastal upwelling occurs off the coast of Senegal  
**Abdou Khadre Ngom**
4. Characterizing the 3D Boundary of Mesoscale Eddies using In-situ Data  
**Yan Barabinot**
5. Internal solitary tides imprints on chlorophyll detected from ocean color and from new in-situ glider data off the Amazon shelf  
**Amine M'hamdi**
6. Turbulent dissipation due to internal tides using the AMAZOMIX microstructure data.  
**Fabius Cedric Kougang**
7. On the origin of the South Equatorial Undercurrent  
**Julia Araujo**
8. Drivers and impact of the 2021 extreme warm event in the tropical Angolan upwelling system.  
**Rodrigue Anicet Imbol Kountgue**
9. How does the Niger river warm coastal waters in the northern Gulf of Guinea?  
**Gael Alory**
10. Low salinity water intrusion in the Angolan Upwelling System and its potential impact on fisheries  
**Founi Mesmin Awo**
11. Impact of marine heat waves on the ocean and atmospheric conditions in the Gulf of Guinea  
**S. Djakouré**
12. Marine heatwaves and the mesoscale eddy activity in the Agulhas Region  
**Julia Araujo**
13. Evaluating Fisheries and Climate Change on the Amazon River Estuarine Ecosystem Using a Trophic Modeling Approach  
**Maria Alice Lima**
14. Evidence of uplifting in the Rio Grande Cone region, southwestern Atlantic Ocean  
**Rafael André Avila (virtual)**
15. Mesoscale dynamics and its influence on coastal upwelling in the northern Gulf of Guinea

<b>Abdoul Karim Thiam</b>
16. Marine Heat Waves under global warming: The Brazil Current region, a study case <b>Camila Artana</b>
17. Influence of mesoscale eddies on latent and sensible heat fluxes in the tropical Atlantic ocean <b>Habib Micaël Aguedjou</b>
18. IMAGO : An IRD support and research unit <b>Bernard Bourlès</b>
19. Remote and local synchronous forcing of the eastern boundary upwelling system in spring by intraseasonal pulses of the Azores High <b>Badara Sane</b>
20. Models' evaluation and changes in primary production by 2100 in the Tropical Atlantic <b>Valentin Lézé</b>

19h00 WINE TESTING AND ICE BREAKER

## TAV-PIRATA/TRIATLAS MEETING

Banyuls sur mer

Tuesday 17 October 2023

### 9h00-10h30 CLIMATE VARIABILITY 2

5. Decadal modulations of interannual SST variability in the Northeastern Tropical Atlantic upwelling region <b>Joke Lübbecke</b>
6. Dependency of simulated tropical Atlantic current variability on the wind forcing <b>Kristin Burmeister</b>
7. Extreme Compound Events in the tropical and South Atlantic <b>Regina R. Rodrigues</b> (virtual)
8. The 2021 Atlantic Niño and Benguela Niño Events: External forcings and air-sea interactions <b>Serena Illig</b>
9. Variabilidade Climática e Seus Efeitos nas Comunidades Locais ao Longo da Zona Costeira <b>Pedro Tchipalanga</b>
10. Low confidence in multi-decadal trends of wind-driven upwelling across the Benguela upwelling system due to internal climate variability <b>Hadi Bordbar</b>

10h30 Coffee Break

### 11h00-11h30 CLIMATE VARIABILITY 3

11. Status and Trends of Brazilian Coral Reefs under human and climate impacts: a decadal analysis. <b>Beatrice Padovani Ferreira</b>
12. Indian Ocean Dipole Affects Eastern Tropical Atlantic Through Congo River Basin Hydrology <b>Mike McPhaden</b>

11h30-12h30 A tribute to Mathieu Rouault

12h30-14h00 Lunch

## 14h00-15h30 Instrumentation / Best Practices

1. SAGA: The South Atlantic Gateway  
**Josep L. Pelegrí**
2. Physical data collected during PIRATA-FR : Processing, Validation and Diffusion  
**Pierre Rousselot**
3. Characterisation of the biological carbon gravity pump in the South Atlantic Ocean  
**Lars Stemmann**
4. New biogeochemical parameters collected during PIRATA-FR  
**Thierry Cariou**
5. EUROSEA  
**Leticia Cotrim da Cunha**
6. Lessons learned from the EUREC4A-OA field experiment on the structure and impact of ocean small scales on the ocean general circulation and air-sea interactions in the Northwest Tropical Atlantic  
**Sabrina Speich**

## 15h30-16h00 POSTER TALKS #2 (Climate / Variability)

## 16h00-16h30 Coffee Break

## 16h30-18h00 POSTER SESSION #2 (Climate / Variability)

1. Origin of the recent warming along the Angolan and Namibian coasts  
**Serge Tomety**
2. Optimal environmental scenario supporting small pelagic fish recruitment success in an upwelling region driven by the equatorial oceanic teleconnection: the case of *Sardinella aurita* in Angolan upwelling  
**Marek Ostrowski**
3. The role of Saharan dust in the equatorial Atlantic variability  
**Ignasi Vallès Casanova**
4. OCEAN-ATMOSPHERE PROCESSES IN RESPONSE TO CLIMATE CHANGE IN THE TROPICAL SOUTH ATLANTIC  
**Isabelle Vilela**
5. Effect of the resolution of the ocean mixed layer in the representation of Atlantic Coastal Upwelling Systems  
**Teresa Iosada**
6. Impact of the location of tropical convection on climate variability  
**Lucía Montoya-Carramolino**
7. Upper-Ocean Circulation and Tropical Atlantic Interannual Modes  
**Marta Martín-Rey**
8. On the roles of Atlantic Nino/Nina in the tropical cyclones over the Western North Pacific  
**Dongmin Kim (virtual)**
9. Interannual variability of chlorophyll-a concentration in the Iberian Peninsula-Canary Islands upwelling system  
**Irene Polo**
10. Characteristics of the Weather Regimes over the Senegalese coastal area that explain upwelling extreme events  
**Irene Polo**
11. Relationship between marine ecosystems in the Tropical Atlantic using observations, reanalysis and CMIP6 historical simulations  
**Irene Polo**

12. Plankton variability and interaction with environmental parameters in the Palmeirinhas transect (Luanda-Angola). <b>Sónia Silva (virtual)</b>
13. Southeastern Tropical Atlantic Sea Surface Temperature Variability: Links to Congo River Discharge and Angola Current Dynamics <b>Léo C. Aroucha</b>
14. Uncertainty on Atlantic Niño amplitude projections <b>Arthur Prigent</b>
15. The effects of climate change and fishing in a tropical Brazilian marine food web <b>Maria Alice Leite Lima (virtual)</b>
16. AN ATLAS OF CLIMATIC PREDICTORS FOR THE SENEGAL-MAURITANIA AND EQUATORIAL ATLANTIC MARINE ECOSYSTEM REGIONS <b>Iñigo Gómara (virtual)</b>
17. Long-term warming in the Brazil-Malvinas Confluence <b>D. Veleda</b>
18. Interannual oxygen variability in the Eastern Tropical Atlantic Ocean <b>Jérôme Llido</b>
19. Dakar Nino variability under global warming investigated by a high-resolution regional coupled model <b>Shunya Koseki</b>
20. On the evolution of stratification and oxygen conditions along the west African continental shelf during the last three decades <b>Paulo Coelho (virtual)</b>

## TAV-PIRATA/TRIATLAS MEETING

Banyuls sur mer

Wednesday 18 October 2023

9h00-10h30 BIOGEOCHEMISTRY #1
1. Zooplankton Diel Vertical Migrations in the tropical Atlantic and their impact on carbon export and particulate matter distribution <b>Rainer Kiko</b>
2. Evaluating the impact of recent atmospheric aerosol deposition on Tropical Atlantic primary production, export and subsurface iron stocks <b>Joan Llort</b>
3. Drivers of the pelagic Sargassum proliferation in the Atlantic <b>Julien Jouanno</b>
4. Message in a bottle: in vitro experiments reveal the interactive effects of temperature and nutrients on the growth and metabolism of tropical phytoplankton <b>Emilio Marañón</b>
5. The impact of M2 internal tides on the near-surface chlorophyll concentration off the Amazon Shelf <b>Carina Regina de Macedo (virtual)</b>
6. Ocean acidification at the PIRATA time-series station at 6°S, 10°W <b>Nathalie Lefèvre (virtual)</b>

10h30-11h00 Coffee Break
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**11h00-11h30 BIOGEOCHEMISTRY #2**

7. Physical/biogeochemical interactions in the Gulf of Guinea near Sao Tomé Island  
**Isabelle Dadou**
8. Analysis of climate-driven physical-biogeochemical processes in key regions of the tropical and south Atlantic  
**David Rivas**

**11h30-12h30 SOCIO-ECOLOGY**

1. Inequality in scientific collaborations and TRIATLAS: narrowing the gaps to overcome imbalance  
**Mônica Muelbert**
2. Global spatial-temporal trends of tuna ex-vessel price  
**Eurico Noletto-Filho**
3. Implications of oceanographic variables on the bigeye tuna (*Thunnus obesus*, Lowe 1839) fishery in the Tropical and Southern Atlantic Ocean  
**Marília Previero**
4. Fishers perceptions of global change to inform coastal planning in a data-poor socio-ecological system  
**Latifa Pelage**

**12h30-14h00 Lunch****14h00-15h30 Marine Ecosystem**

1. Factors affecting size spectra slopes across pelagic food webs (from small cells to big fish) across the Atlantic Ocean - how important are temperature and ecosystem productivity?  
**Ralf Schwamborn**
2. Forecasting global-scale marine species distributions: Combining Marine Ecosystem Models (MEMs) and Bayesian additive regression trees  
**Marta Coll**
3. Bottom-up, top-down, and environmental drivers of the microplankton community in an oligotrophic ocean  
**Gabriel Farias**
4. Trophic interactions shape how Atlantic reef ecosystems respond to marine heat wave intensity and frequency  
**Leonardo Capitani**
5. Spatial Distribution, Abundance and Taxonomical Composition of Zooplankton in the Canary Current Upwelling System  
**Alena Saskovich**
6. Influence of the Amazon River Plume on particles and zooplankton distribution in the Tropical Atlantic  
**Claudeilton Severino de Santana**

**15h30-16h00 Poster talks #3****16h00-16h30 Coffee Break****16h30-18h00 POSTER SESSION #3**

1. Eddies induced by the interaction of tropical Atlantic surface currents with Fernando de Noronha Island  
**Marcus silva**

2. On the importance of organic matter discharge for the Amazon plume productivity: a modeling study <b>Manon Gevaudan</b>
3. Trophic position estimates of key mesopelagic fishes in the Southwestern Atlantic Ocean <b>Juliano Lauser Coletto (virtual)</b>
4. Global and Regional Ocean Biogeochemical parameter estimation for an Earth System Model using Data Assimilation <b>Tarkeshwar Singh</b>
5. Making ecosystem modelling operational - using a novel distributed execution framework to systematically explore ecological responses to divergent climate trajectories in initialised Earth system predictions <b>Jeroen Steenbeek</b>
6. Multiyear predictability of zooplankton biomass in the eastern subtropical North Atlantic <b>Yeray Santana-Falcón</b>
7. Phytoplankton biomass and pigment community composition on the Amazon continental shelf <b>Angelica Viana e Silva (virtual)</b>
8. Seasonal and mesoscale variations of zooplankton community structure and biovolume in the Southwestern Tropical Atlantic <b>Simone M. A. Lira (virtual)</b>
9. Spatial distribution of Small Pelagic Early life Stages in Relation to Environmental Changes in the Southern part of the CCLME zone <b>Ismâila Ndour</b>
10. Fish indicators change with bathymetry and time in Atlantic and Mediterranean waters <b>Carlos Veloy</b>
11. Towards observations-informed prediction of marine primary production: Lessons from an idealised modeling approach <b>Hugo Imaz</b>
12. Which taxon-specific contributions shape the extremely steep zooplankton size spectra in tropical estuarine, coastal, and shelf ecosystems? <b>Ralf Schwamborn</b>
13. Long-term change of tuna distribution and gyres <b>Juliano Ramanantsoa (virtual)</b>
14. Biodiversity, trophic position, and nutritional ecology of euphausiid species in the Benguela Upwelling System <b>Tine Jordan</b>
15. Diet analysis of three understudied mesopelagic species from the Southwest Subtropical Atlantic: <i>Lepidophanes guentheri</i> (Goode & Bean, 1896), <i>Gymnoscopelus bolini</i> (Andriashev, 1962), and <i>Hygophum hygomii</i> (Lütken, 1892) (Myctophiformes: Myctophidae) <b>Laura Alma S. M. Costa</b>
16. Ecosystem Variability and Predictability in the Tropical Atlantic <b>Filippa Fransner</b>
17. Protecting southern areas of ecological importance for marine predators on the move <b>Francisco Ramírez (virtual)</b>
18. Advancements in Fisheries Self-Reporting: Introducing the Shiny4SelfReport App with Automated Cloud-Based Data Integration and Analysis. <b>Eurico Noleto-Filho</b>
19. Distribution patterns and biodiversity of pelagic and mesopelagic fishes in the Subtropical Southwestern Atlantic Ocean <b>Aline Silva (virtual)</b>
20. Angola Mesopelagic Biodiversity

<b>Fátima Delicado (virtual)</b>
21. High copepod biomass in North West Africa highlights their key role in the upwelling system functioning <b>Ndagoue DIOGOUL</b>
22. Using otolith biochronologies from sardine ( <i>Sardinops sagax</i> ) in the Benguela to identify ecosystem shifts <b>Faye Brinkman</b>

20h00 SOCIAL DINNER

## TAV-PIRATA/TRIATLAS MEETING

Banyuls sur mer

Thursday 19 October 2023

<b>9h-10h Marine Ecosystem #2</b>
7. Mesopelagic fish communities in the open Atlantic – revisiting historical data with trait-based approaches Henrike Andresen
8. Distribution of Deep-Scattering Layers and Vertical Migration along transects crossing the central and southeastern Atlantic Tim Dudeck
9. Tropical Atlantic: a hotspot for early detectable and long-lasting anthropogenic changes in ocean interior Jerry Tjiputra
10. Exploring past spatial ecosystem dynamics in the Southern Benguela Lynne Shannon

10h00-10h30 Coffee Break

<b>10h30-11h30 Marine Ecosystem #3</b>
11. Decadal fluctuations in the Angolan sardinella stock: Triggered by climatic factors, exasperated by fishing pressure. Marek Ostrowski / Filomena Vaz Velho
12. Spatio-temporal variability in pelagic biophysical associations in the eastern tropical Atlantic Pavanee Angelee Annasawmy
13. ENSO IMPACT on SOUTH ATLANTIC AND MARINE ECOSYSTEM Belen Rodriguez-Fonseca
14. Environmental drivers of mesopelagic fish assemblages in the Benguela and Canary Current Upwelling Systems Sabrina Duncan

12h00-14h00 Lunch