

TAV-PIRATA/TRIATLAS MEETING

Banyuls sur mer

Monday 16 October 2023

9h-9h30: WELCOME OF THE PARTICIPANTS	
9h30-11h00 OCEAN DYNAMICS #1	CHAIRS: Serena Illig & Leo Aroucha
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	CHAIRS: Sandrine Djakouré & Rodrigue A. Imbol Koungue
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	CHAIRS: Sandrine Djakouré & Rodrigue A. Imbol Koungue
11. 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 (virtual)	

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

CHAIRS: Marta Martín-Rey & Joke Lubbecke

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-Miguel
3. Reducing biases in low cloud cover over the tropical Atlantic in the Norwegian Earth System Model
Richard Davy (CANCELLED)
4. South Atlantic Anti-Cyclone as driver for Atlantic Niño'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 Kounoue
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 Abdoul Karim Thiam
16. Marine Heat Waves under global warming: The Brazil Current region, a study case Camila Artana
17. Influence of mesoscale eddies on latent and sensible heat fluxes in the tropical Atlantic ocean Habib Micaël Aguedjou
18. IMAGO : An IRD support and research unit Bernard Bourlès
19. Remote and local synchronous forcing of the eastern boundary upwelling system in spring by intraseasonal pulses of the Azores High Badara Sane (virtual)
20. Models' evaluation and changes in primary production by 2100 in the Tropical Atlantic Valentin Lézé (virtual)

19h00 WINE TESTING AND ICE BREAKER

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Tuesday 17 October 2023

9h00-10h30 CLIMATE VARIABILITY #2	CHAIRS: Emilia Sanchez Gomez & Ignasi Valles Casanova
5. Decadal modulations of interannual SST variability in the Northeastern Tropical Atlantic upwelling region Joke Lübbecke	
6. Dependency of simulated tropical Atlantic current variability on the wind forcing Kristin Burmeister	
7. Extreme Compound Events in the tropical and South Atlantic Regina R. Rodrigues (virtual)	
8. The 2021 Atlantic Niño and Benguela Niño Events: External forcings and air-sea interactions Serena Illig	
9. Variabilidade Climática e Seus Efeitos nas Comunidades Locais ao Longo da Zona Costeira Pedro Tchipalanga	
10. Low confidence in multi-decadal trends of wind-driven upwelling across the Benguela upwelling system due to internal climate variability Hadi Bordbar	

10h30 Coffee Break

11h00-11h30 CLIMATE VARIABILITY #3	CHAIRS: Emilia Sanchez Gomez & Ignasi Valles Casanova
11. Status and Trends of Brazilian Coral Reefs under human and climate impacts: a decadal analysis. Beatrice Padovani Ferreira	
12. Indian Ocean Dipole Affects Eastern Tropical Atlantic Through Congo River Basin Hydrology Mike McPhaden	

11h30-12h30 A tribute to Mathieu Rouault - **organised by Marie-Lou, Noel, Bernard, Serena**

12h30-14h00 Lunch

14h00-15h30 Instrumentation / Best Practices

CHAIRS: Tim Dudeck & Kristin Burmeister

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
Yawouvi Dodji Soviadan
4. New biogeochemical parameters collected during PIRATA-FR
Thierry Cariou
5. EUROSEA
Leticia Cotrim da Cunha
6. 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 Fernandez (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 (virtual)
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 (CANCELLED)
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 Losada
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 (CANCELLED)

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). Sónia Silva (virtual)
13. Southeastern Tropical Atlantic Sea Surface Temperature Variability: Links to Congo River Discharge and Angola Current Dynamics Léo C. Aroucha
14. Uncertainty on Atlantic Niño amplitude projections Arthur Prigent
15. The effects of climate change and fishing in a tropical Brazilian marine food web Maria Alice Leite Lima (virtual)
16. AN ATLAS OF CLIMATIC PREDICTORS FOR THE SENEGAL-MAURITANIA AND EQUATORIAL ATLANTIC MARINE ECOSYSTEM REGIONS Iñigo Gómara (virtual)
17. Long-term warming in the Brazil-Malvinas Confluence D. Veleda (virtual)
18. Interannual oxygen variability in the Eastern Tropical Atlantic Ocean Malaëka Robo (Jérôme Lido)
19. Dakar Nino variability under global warming investigated by a high-resolution regional coupled model Shunya Koseki
20. On the evolution of stratification and oxygen conditions along the west African continental shelf during the last three decades Paulo Coelho (virtual) → move to Wednesday 18 October 2023

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Wednesday 18 October 2023

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

10h30-11h00 Coffee Break

11h00-11h30 BIOGEOCHEMISTRY #2

CHAIRS: Filippa Fransner & Manon Gévaudan

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

CHAIRS: Hans Sloterdijk & Adriana Carvalho

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 Noleto-Filho (virtual)
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

CHAIRS: Sabrina Duncan & Lynne Shannon

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 Manon Gevaudan
3. Trophic position estimates of key mesopelagic fishes in the Southwestern Atlantic Ocean Juliano Lauser Coletto (virtual)
4. Global and Regional Ocean Biogeochemical parameter estimation for an Earth System Model using Data Assimilation Tarkeshwar Singh
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 Jeroen Steenbeek
6. Multiyear predictability of zooplankton biomass in the eastern subtropical North Atlantic Yeray Santana-Falcón
7. Phytoplankton biomass and pigment community composition on the Amazon continental shelf Angelica Viana e Silva (virtual)
8. Seasonal and mesoscale variations of zooplankton community structure and biovolume in the Southwestern Tropical Atlantic Simone M. A. Lira (virtual)
9. Spatial distribution of Small Pelagic Early life Stages in Relation to Environmental Changes in the Southern part of the CCLME zone Ismaila Ndour
10. Fish indicators change with bathymetry and time in Atlantic and Mediterranean waters Carlos Veloy (virtual)
11. Towards observations-informed prediction of marine primary production: Lessons from an idealised modeling approach Hugo Imaz
12. Which taxon-specific contributions shape the extremely steep zooplankton size spectra in tropical estuarine, coastal, and shelf ecosystems? Ralf Schwamborn
13. Long-term change of tuna distribution and gyres Juliano Ramanantsoa (virtual)
14. Biodiversity, trophic position, and nutritional ecology of euphausiid species in the Benguela Upwelling System Tine Jordan
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) Laura Alma S. M. Costa (virtual)
16. Ecosystem Variability and Predictability in the Tropical Atlantic Filippa Fransner
17. Protecting southern areas of ecological importance for marine predators on the move Francisco Ramírez (virtual)
18. Advancements in Fisheries Self-Reporting: Introducing the Shiny4SelfReport App with Automated Cloud-Based Data Integration and Analysis. Eurico Noleto-Filho
19. Distribution patterns and biodiversity of pelagic and mesopelagic fishes in the Subtropical Southwestern Atlantic Ocean Aline Silva (virtual)
20. Angola Mesopelagic Biodiversity

Fátima Delicado (virtual)
21. High copepod biomass in North West Africa highlights their key role in the upwelling system functioning Ndague DIOGOUL
22. Using otolith biochronologies from sardine (<i>Sardinops sagax</i>) in the Benguela to identify ecosystem shifts Faye Brinkman
23. On the evolution of stratification and oxygen conditions along the west African continental shelf during the last three decades Paulo Coelho (virtual)

20h00 SOCIAL DINNER

TAV-PIRATA/TRIATLAS MEETING

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Thursday 19 October 2023

9h-10h Marine Ecosystem #2	CHAIRS: Jeroen Steenbeek & Faye Brinkman
Observatoire Océanologique de Banyuls-sur-Mer, The director's address Yves Desdevises	
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	

10h00-10h30 Coffee Break

10h30-11h45 Marine Ecosystem #3	CHAIRS: Jeroen Steenbeek & Faye Brinkman
10. Exploring past spatial ecosystem dynamics in the Southern Benguela Lynne Shannon	
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