



*Host Institutions*



## **PIRATA – PREFACE – TAV Tropical Atlantic Variability Conference**

	<p><b>PIRATA 22 MEETING</b></p> <p><b>PIRATA 20 YEARS</b></p> <p><b>05 – 10 November, 2017</b> <b>Fortaleza – CE</b> <b>Brazil</b></p>	 
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### **PIRATA 22**

***PIRATA Project 20 Years Conference: Contributing to the understanding and prediction of the Tropical Atlantic Climates***

## **FIRST ANNOUNCEMENT AND CALL FOR ABSTRACTS**

The Twenty second PIRATA conference (PIRATA 22 meeting) will occupy a prominent position, because the project celebrates its 20 years in 2017. Taking this into account, with TAV (Tropical Atlantic Variability) and PREFACE (PREdiction of Tropical Atlantic ClimatE and its Impacts) participation, the following topics will be addressed during PIRATA 22:

### **Session 1 - Mechanisms of tropical Atlantic Climate Variability and Change**

The progress in the understanding of the different modes of tropical Atlantic Climate Variability, their physical mechanisms and time scales as identified in observations and simulations will be addressed in this session. Areas of particular focus will be a) the interannual variability of tropical Atlantic SST; b) ocean-atmosphere interaction and its effect on atmospheric circulation over the ocean and surrounding continents; c) teleconnections to other ocean basins; d) deep ocean circulation changes; e) the response of the tropical climate system to anthropogenic climate change; and f) observational studies utilizing in-situ data sets including PIRATA moorings and hydrography data, Argo floats and surface drifter data, satellite observations, and model output from process-oriented simulations.

## **Session 2** - *Oceanic and Atmospheric Processes Affecting Biogeochemical Interaction in the Tropical Atlantic*

Climate-biogeochemistry interaction is of particular importance in the tropical ocean. The effect of global warming in the biologically highly-productive regions in the eastern tropics, deoxygenation, acidification, and the sequestration/outgassing of radiative and chemical active gases are highly relevant aspects of ongoing tropical Atlantic climate research. This session invites observational as well as modeling studies addressing ocean chemistry and physical-biogeochemical interactions in the tropical Atlantic on all space and time scales.

## **Session 3** - *Predictability, Coupled and Uncoupled Model Biases*

This session will address the improved understanding of tropical Atlantic climate predictability. The focus of the session will be on the bias problem and the predictive skill of state-of-the-art coupled models. Studies based on coupled land-ocean-atmosphere simulations, as well as uncoupled ocean and atmosphere simulations are invited, e.g. the impacts of river discharges on tropical Atlantic circulation and temperature changes in coupled models; the impact of continental rainfall on coupled models ocean and atmospheric biases. In particular, we welcome studies using multimodel climate analyses produced by the different sets of experiments performed within the CMIP5 intercomparison exercise. Validation of coupled and uncoupled model studies against PIRATA array data time series are especially welcomed.

## **Session 4** - *Towards Realizing Socio - Economic Researches on Damages and Benefits of Climate Prediction in the Tropical Atlantic for Marine Ecosystems, Fisheries, and Continental Climate*

The climate of the tropical Atlantic Ocean is currently experienced pronounced changes which are potentially of great socio-economic importance for the oceanic resources and the surrounding continents. Such acceleration due to climate change and anthropogenic activities already affects the marine environment (ex. Acidification, Sargassum blooms, coral growth, etc) as well the coastal areas (ex. beach erosion, human activities & pollution). In this session, we shall estimate the effects of climate change on: i) fish resources, ii) coastal degradation, iii) disease of humans in tropical lands, like dengue fever; iv) conventional and non-conventional sources of water supply in semi-arid regions; v) agriculture, vi) tourism, etc.

## **Round Table** - *PIRATA Research Infrastructure: Present, Future Observations and New Technologies for the Next 20 Years*

From 20 years and the early steps of the PIRATA network, the Tropical Atlantic Observing System considerably evolved, notably with new TFLEX moorings replacing ATLAS, world-wide Argo Project, new satellite measurements etc. In the context of the future internationally developed Blueprint of Integrated Atlantic Ocean Observing Systems that will be developed for the OceanObs19 conference, it seems timely to discuss about the potential evolution and optimization of the PIRATA network. Therefore, how we will observe the ocean in the next 20 years?, what new instruments, new measurements techniques, *in situ* data with transmission in real time will be used?, what new simulation/forecasts systems, real time alert warning systems, etc, will be available?

## Local Organizing Committee

Antônio Geraldo Ferreira - *LABOMAR - UFC* (Chair); Meiry Sayuri Sakamoto - *FUNCEME* (Co-Chair); Carlos Eduardo Peres Teixeira - *LABOMAR – UFC*; Ana Beatriz Leite Cavalcante – *LABOMAR – UFC*; Débora Moraes Cavalcante - *LABOMAR – UFC*

## Scientific Organizing Committee

Adrienne Sutton – *NOAA*; Bernard Boulès – *IRD*; Fabrice Hernandez – *IRD*; Hervé Giordani - *Meteo France*; Leticia Cotrim – *UERJ*; Mike McPhaden - *NOAA*; Moacyr Araujo – *UFPE*; Nathalie Lefèvre – *IRD*; Paulo Nobre – *INPE*; Peter Brandt – *GEOMAR*; R. Saravanan – *TAMU*; Rick Lumpkin – *NOAA*

## Registration and Abstracts Submission

The web site (<http://www3.funceme.br/pirata22/>) for online registration and abstracts submission will be opened on 21 June 2017.

Fortaleza, June 16, 2017



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