













## **General context:**

The Tropical Atlantic climate has important socio-economic consequences, but our understanding about its variability, its predictability and its impacts is still limited. The "Prediction and Research Moored Array in the Tropical Atlantic" (PIRATA) program provides in situ observations and data time-series since 1997. One year after the special 2017 meeting that celebrated its 20th anniversary in Fortaleza, and co-organized with the European PREFACE program, PIRATA organizes its 2018 annual meeting in Marseille, under the invitation of the IRD Chief Executive Officer Pr Jean-Paul Moatti.

PIRATA is a major component of the Tropical Atlantic Observing System (TAOS) that is presently under a review process by the CLIVAR Atlantic Region Panel (ARP). The TAOS review committee will recommend actions to advance sustained observing efforts in the tropical Atlantic that will feed into the European AtlantOS program design strategy (Blueprint initiative) that is currently being formulated in advance of the OceanObs'19 conference. The 2<sup>nd</sup> TAOS Review Meeting is scheduled to happen back-to-back to PIRATA-23 meeting.

These meetings have to be an important opportunity to gather information on the Tropical Atlantic Observing System and PIRATA data use impacts from stakeholders, specialists in satellite measurements and products, ocean-weather-climate operational prediction, ocean biogeochemistry and resources along with socio-economic impacts of climate and environmental changes. Such information are of prime importance for evaluating and valorizing observing systems and to better define their potential optimization and enhancements in the close future, but also for major services and developing agencies.

# **Program and schedule:**

2,5-3 days of open scientific conference (Mon-Wed, 22nd-24th)

2-2,5 days for PIRATA and TAOS internal meetings and workshops (Wed 24th-Fri, 26th).

Detailed agenda for the conference and list of abstracts will be made available about one month before the conference, once posters and oral presentations evaluated and scheduled.

# Scientific sessions will be organized as follows:

**Session 1 -** Oceanic and Atmospheric Mechanisms Affecting Tropical Atlantic Climate

This session will focus on studies utilizing both in situ data sets and model output from process oriented simulation analyses. These should address 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. Areas of particular focus will be a) the seasonal and interannual variability of tropical Atlantic EOVs and ECVs and b) ocean-atmosphere interaction and its effect on atmospheric deep convection over the ocean and surrounding continents.

# **Session 2 -** Simulation and Predictability of Tropical Atlantic Climate Variability and Change

This session will address the state-of-the-art simulations of the Tropical Atlantic Climate and the improved understanding of its predictability. Validation and skills of coupled and uncoupled model studies against Tropical Atlantic Observing Systems and PIRATA array data time series are especially welcomed, as well as the responses of the tropical ocean and atmosphere systems to anthropogenic climate changes.

## **Session 3 -** Physical-Biogeochemical Interaction

Climate-biogeochemistry interaction is of particular importance in the tropical oceans. 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 important aspects of ongoing tropical Atlantic climate research. This session invites observational (i.e., PIRATA biogeochemical EOVs dataset...) as well as modeling studies addressing physical-biogeochemical interactions in the tropical Atlantic on all space and time scales.

# **Session 4 -** Societal impacts and benefits of the Tropical Atlantic Observing System

Weather and climate variability impact on society in different ways: oceanic resources/ fishing, marine ecosystems health, coastal areas vulnerability, human health, water supply, agriculture, renewable energy, tourism, etc. This section will focus on the importance of the tropical Atlantic data for socio-economy. Study cases involving benefits of derived products using tropical Atlantic observations (i.e., satellite products calibration, climatology, reanalyzes, etc.), as well as OSE and OSSE exercises are welcomed.

## PIRATA and TAOS review committee internal meetings

## Venue:

The meeting will be held in Marseille.

The conference should take place in the auditorium of the "Archives et Bibliothèque départementales Gaston Defferre » (18-20 rue Mirès, 13003 Marseille), that is located close to the IRD headquarter.

A room has also be booked at the IRD headquarter for // discussions (PIRATA committees) the two last days.

More info soon.

## **Scientific committee:**

Bernard Bourlès (IRD - France); Hervé Giordani (Météo-France - France); Fabrice Hernandez (IRD - France); Nathalie Lefèvre (IRD - France); Moacyr Araujo (UFPE - Brazil); Paulo Nobre (INPE - Brazil); Letica Cotrim (UERJ - Brazil); Mike McPhaden and Adrienne Sutton (NOAA/PMEL - USA); Gregory Foltz and Renellys Perez (NOAA/AOML - USA); Ramalingam Saravanan (TAMU - USA); Peter Brandt and Marcus Dengler (GEOMAR, Germany), Bill Johns (RSMAS/MPO – USA).

#### **Useful information:**

Address of the IRD:

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The IRD is located in the building «le Sextant», Boulevard de Dunkerque, Place Gantes.

Access by public transport:

- Subway: line 2, Joliette or Désirée Clary stations
- Tramway: line T2, Euroméditerranée Gantès stop
- **Bus:** from the Joliette place, take the bus n° 35, 49, 55 or 83; from the Clary subway station, take the bus n°70

Address of the auditorium of the "Archives et Bibliothèque départementales Gaston Defferre": BP 10099

13303 Marseille cedex 03 Phone: +33 (0)4 133 31 82 08 Fax: +33 (0)4 13 31 82 11

### Access by public transport:

The Gaston Defferre Departmental Archives and Library are located near the port (near the Chantérac gate), next to the Docks of the Joliette and Southern Docks.

- **Bus:** the nearest stops are : line 70 : Ruffi-Mirès station and line 35 : Euromed-Arenc station.
- Subway (line 2): Désirée Clary or National stations.
- **Tramway (T2):** Terminus, Euroméditerranée Arenc or Gantès stops.
- •Shuttle Aix-Marseille, line 49: Euromed-Arenc station

For more information, see the website: www.navetteaixmarseille.com

#### Meeting organization committee:

Philippe Chanard, Bernard Bourlès, Dominique Lopes, Jacques Grelet, Violaine Arnaud, Marie-Lise Sabrié (IRD)

### **Sponsors:**

IRD, Météo-France