PREFACE-PIRATA-CLIVAR Tropical Atlantic Variability Conference

28th November – 1st December 2016, UPMC, 75005 Paris, France

First Announcement and Call for Abstracts

Tropical Atlantic climate recently experienced pronounced shifts of great socio-economic importance. The oceanic changes were largest in the eastern boundary upwelling systems. African countries bordering the Atlantic strongly depend upon their ocean - societal development, fisheries, and tourism. They were strongly affected by these climatic changes and will face important adaptation challenges associated with global warming. Furthermore, these upwelling regions are also of great climatic importance, playing a key role in regulating global climate. The 2016 TAV conference will comprise 3 sessions (full description on website):

I. Oceanic and atmospheric processes affecting physical-biogeochemical interaction and climate

Conveners: Nathalie Lefèvre, IRD LOCEAN, Paris, France; Rebecca Hummels, GEOMAR, Kiel, Germany; Renellys C. Perez, NOAA, AOML, Miami, USA; Frederic Marin, IRD, Toulouse, France; Julien Jouanno, IRD, Toulouse, France

This session will focus on observational studies utilizing in-situ data sets. Of particular importance are processes affecting the upper ocean heat and freshwater balance, equatorial and coastal wave processes, and circulation variability.

II. Mechanisms and simulation of tropical Atlantic climate variability

Conveners: Elsa Mohino, UCM, Spain; Alban Lazar, UPMC, France; Mathieu Rouault, UCT, South Africa; Aurore Voldoire, MF-CNRS, France, Hyacinth Nnamchi, UNN, Nigeria; Joke Luebbecke, GEOMAR, Germany; Regina Rodrigues, UFSC, Brasil; Ping Chang, TAMU, USA; Ingo Richter, JAMSTEC, Japan

The tropical Atlantic is subject to pronounced variability on interannual to decadal time scales. Several patterns of tropical Atlantic variability (TAV) have been identified in various locations of the tropical Atlantic. Despite some progress in our understanding of TAV, key uncertainties still exist. Among them are the interconnections of the various modes of TAV (including links to the extratropics), the relative roles of dynamic and thermodynamic air-sea coupling, and the potential predictability of TAV. From a modeling perspective, many aspects of the tropical Atlantic climate remain poorly simulated in current general circulation models (GCMs). In order to improve the prediction of TAV and its impacts on the surrounding continents, it is crucial to better understand the mechanisms of TAV and to evaluate the influence of GCM biases on TAV simulation.

III. Towards realizing socio-economic benefits of climate prediction in the Tropical Atlantic for marine ecosystems, fisheries, and continental climate

Conveners: Chloe Prodhomme, BSC, Spain; Noel Keenlyside, UiB, Norway; Jorge Parages, UNIVE, Italy; Heino Fock, TI, Germany; Jörn Schmidt, CAU, Germany, Timothee Brochier, IRD, France

Land use and fisheries are primary sectors in the response of sub-Saharan societies to Climate Change. Processes affecting the provision of ecosystem services from physiological, individual to the food-web, ecosystem level are impacted by climate variability, and will be altered according to local and regional future climate conditions. Estimation of process rates and accurate prediction of local to regional changes are crucial parameters for the understanding of potential changes in coupled human-nature systems. Climate prediction is improving, but is current skill sufficient to realize societal benefit and how can they further improved? How do mean state errors impact predictions and climate projections?

Deadline for Abstracts: 1st September 2016

Registration and session information: http://preface.b.uib.no/events/meetings/tav-and-ga2016/

Organizing Committee:
Alban Lazer, Celine Le Helley and Dany Thomas (UPMC, Paris), and Mahaut de Vareilles (UiB, Bergen)