



## **4<sup>th</sup> AMMA International Conference**

### **2<sup>nd</sup>-6<sup>th</sup> July 2012, Toulouse, France**

The African Monsoon Multidisciplinary Analyses (AMMA) project, launched in 2002, is an international interdisciplinary research programme concerned with the variability of the West African Monsoon (WAM) and its impacts on communities in that region. In addition to continued efforts to improve our fundamental understanding of the WAM, AMMA strives to “pull through” knowledge gained to improve our understanding of interactions between WAM variability and society and to improve our ability to predict the WAM on a range of timescales. The 4<sup>th</sup> AMMA International Conference will take place at the International Conference Centre in Toulouse between the 2<sup>nd</sup> and 6<sup>th</sup> July, 2012.

The conference takes place at an important time for AMMA. The 2<sup>nd</sup> International Science Plan (ISP, [http://www.amma-international.org/IMG/pdf/ISP2\\_v2.pdf](http://www.amma-international.org/IMG/pdf/ISP2_v2.pdf)) has recently been launched and efforts must be made to build on the knowledge learned in the first phase in order to tackle the key scientific and societal problems that remain. Following the 2<sup>nd</sup> ISP, the conference will be organized around 3 interacting themes:

#### **(A) Society, Environment and Climate Interactions**

Presentations are encouraged that are concerned with the broad theme of the interactions between society, environment and climate. In this context we expect to include themes such as: (i) water resources, (ii) land use, land cover and productivity, (iii) agriculture and food security, (iv) health, (v) energy, (vi) ecosystems, (vii) urban zones and African megacities but in each case we wish to emphasize the interactions between society, environment and climate.

#### **(B) Weather, Seasonal and Climate Predictability and Prediction**

Presentations are encouraged on the predictability and prediction of weather (e.g. mesoscale convective storms, easterly waves and Kelvin waves, tropical cyclogenesis) and climate (intra-seasonal, seasonal and inter-annual to decadal), as well as for climate change scenarios. Presentations in this theme are expected to be somewhat applied and should be concerned with such things as: (i) evaluation and improvement of models; (ii) utilization of current models (by way of new tools, ensemble prediction systems for example); (iii) improvement of use of available observations; (iv) recommendation and

implementation of permanent observing systems to improve monitoring and prediction capabilities, and (v) operational prediction activities at weather and climate scales.

### **(C) The Monsoon System**

Presentations are encouraged that improve our knowledge and understanding of the nature and variability of the WAM system at a range of space and time scales including weather (less than 10 days), intraseasonal (10-90 days), interannual-to-decadal as well as on longer timescales linked to anthropogenic climate change. Emphasis should be given to essential feedback loops as well as the energy and water cycles in the WAM system. Fundamental to this session will be consideration of the coupling between atmosphere, ocean, and land (including aerosols, vegetation and soils).

In addition to having presentations that contribute to these three themes the conference will include time to discuss interactions between them. With this in mind particular emphasis will be given to multidisciplinary aspects of: monsoon onset, intraseasonal variability, decadal predictability (including evaluation of CMIP5 forecasts) and variability of weather systems (including extreme events).

The conference will also include a special session devoted to discussing specific ways in which the knowledge gained in AMMA can be used to develop and enhance products and tools to support the development of African nations. Working in partnership with African scientists, AMMA has made progress both in terms of the science and in terms of enhancing the regional observing system. It is very timely to have an exchange between researchers and operational services in order to assess the current state of affairs, establish priorities for future investment of resources, and ensure that appropriate communication pathways and collaborations are established to develop this aspect of AMMA in the future.

Time will also be allocated to communicate and discuss current and future AMMA research initiatives including such projects as: (i) intraseasonal variability and predictability, and (ii) decadal variability and predictability as already proposed in AMMA's 2<sup>nd</sup> International Science Plan. There will also be discussion of observations that will include sustained observations in the West African region and how these link with other regional efforts (e.g. GEOSS, SECAO, PIRATA etc), as well as current, planned and proposed field campaigns that are relevant and will contribute to the AMMA programme.

More details about the conference, including calls for abstracts, accommodation details as well as financial support for young African scientists, will be made available during the coming months. For the most up-to-date information please go to the AMMA website:

<http://www.amma-international.org>

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