



***Second Circular (June 2008), registration information and call for abstracts for the 5<sup>th</sup> EGU Alexander von Humboldt International Conference***

**IPHAKADE\* : CLIMATE CHANGES AND AFRICAN EARTH SYSTEMS  
- PAST, PRESENT AND FUTURE**

**12-16<sup>TH</sup> JANUARY 2009  
UNIVERSITY OF CAPE TOWN, SOUTH AFRICA**

**[HTTP://WWW.AFRICACLIMATESCIENCE.ORG/HUMBOLDT](http://www.africaclimatescience.org/humboldt)**

***TO UNDERSTAND THE PROCESSES THAT HAVE SHAPED AFRICA AS A HABITABLE PART OF THE PLANET AND HOW THESE MAY CHANGE IN THE FUTURE, AND TO INFORM THE SCIENCE IN SUPPORT OF ADDRESSING THE MAIN CHALLENGES TO AFRICA'S DEVELOPMENT.***

Because humans have started to significantly alter earth's natural systems and disturb their balances, there is an urgent need of deeper understanding of the system process and response to help reduce uncertainty and inform adaptation and mitigation options. Across Africa, communication systems, infrastructure, and management of natural resources must adapt to an environment that will be affected by changing sea levels, land management, magnetic fields, and climate system dynamics.

Because earth systems operate over very diverse spatial and temporal scales, it requires application of a wide range of specialist technologies to measure and model their interactions. Such activities are also the most likely to guide the basic science into exploring arenas of designated technologies and social problem solving. Such an environment would greatly enhance and grow existing emergent capacity.

Because earth has a long history of pre-human climate changes, these should be analysed with greater curiosity and precision as cautious guides for the future: those who do not understand and remember the past are doomed to be caught by surprise. A critical role of Iphakade is to deepen the understanding of the interaction between earth system dynamics and anthropogenic earth system impacts, and to use this knowledge wisely to assess and economically evaluate global change induced by humans, with particular reference to Africa.

Because Africa comprises about 21% of the earth's total continental and plate surface, changes affecting African earth systems dynamics are a key element of global models, however a paucity of observational data, along with the under-development and export of intellectual capital, are limiting factors. Collectively this creates a challenge to the African scientific community to work together and evolve greater multi-disciplinary partnerships. In so doing we may catalyze Africa's science to reach for new levels of knowledge and understanding, and provide greater insight into the role of Africa in the global system.

***\* Iphakade – isiXhosa for "observe the present and consider the past to ponder the future"***



## **AIM AND OUTCOME OF THE CONFERENCE**

It is the aim of this interdisciplinary and international conference to bring together international and African earth system researchers from diverse specializations. Hosting such a Conference in Cape Town will strengthen the discourse amongst African scientists and their international colleagues. With a shared vision of a sustainable Africa as a global partner, this will send a powerful message to the African leadership to engage and support scientific debate and strengthen well informed agendas. Moreover climate change in Africa also has global repercussions that need to be better understood.

The African plate is colossal – just over a fifth of Earth’s surface. Recognizing its enormous size helps to explain the magnitude of the task lying ahead for earth system scientists. Scientists, for instance, in modelling global climate change, need adequate data from and around Africa. Yet insufficient information and far too few indigenous science practitioners are two of Africa’s constraints that need to be faced, arguably Africa’s most immediate needs with long-term implications. A students’ workshop immediately preceding the conference aims at providing an introduction to Earth Systems and modelling applications. Strong participation by students from Africa is intended with financial support to be offered if funding permits. The outcome of the conference will be an evaluation of our progress and a contribution to the agenda for addressing globe change challenges with African-based science and policy actions and interventions.

## **CONFERENCE INFORMATION**

### **Conference Themes**

The conference will be organized into 5 broad themes and several subtopics, each to be deliberated in plenary sessions on separate days.

#### **Climate variability and coupled systems**

Regional Climate Systems.  
Hemispheric & global process.

#### **Climate Change in Africa**

Modelling climate change & managing uncertainty.  
Regional climate change: identifying process & response.

#### **African topography, ecosystems & climate variability**

Tectonics, geomorphology, & ecodynamics.  
Climate & ecodynamics.

#### **Palaeo-climate of Africa and its surrounding oceans**

Terrestrial systems  
Oceanic systems

#### **Economic and social dynamics of global change**

Valuing of Africa’s natural ecosystem services.  
Costing of anthropogenic changes to Africa’s ecosystem services.

The conference aims to include contributions, amongst others, on: ocean systems around Africa, African atmospheric circulation and weather patterns, solar radiation variability, magnetic field changes, African biosphere, African river basins and geomorphology, palaeo-ecodynamics, palaeo-climates, CO<sub>2</sub> sequestration, geothermal energy, ecological economics, natural resources and their management, risk management, social engagement through outreach, and capacity building.

### **Conference Format**

All contributions for the conference will be incorporated in the conference programme. The conference language will be English. The programme will comprise oral or poster presentations with associated panel discussions, open debate and break out sessions. The oral presentations will be delivered in lecture format using electronic media in plenary sessions. Poster contributors will be provided with poster display boards and, in addition, poster review oral presentations will be held within the plenary sessions. Each theme will be highlighted with a guest lecture by a distinguished scholar to provide a global view, and each sub-topic will be introduced by a keynote speaker with African experience.



The conference will run from Monday to Friday (12-16<sup>th</sup> January) with a free afternoon on the Wednesday. A workshop for students will be hosted on the weekend (Saturday 10<sup>th</sup> and Sunday 11<sup>th</sup> January) preceding the workshop. This workshop will focus on recent developments in Earth Systems Science, global change challenges and modelling techniques and will be facilitated by Professor George Philander (Princeton and University of Cape Town). Students attending the conference will be offered the opportunity to participate in this event.

Following the conference, technical tours and field trips will be offered which will take place on Saturday the 17<sup>th</sup> January.

### **Distinguished Scholars and Lectures**

The conference organizers are awaiting confirmation from a number of distinguished African and International Scholars who will deliver special lectures. At this stage we are able to confirm the participation of:

- Robert Costanza (Director, Gund Institute for Ecological Economics, University of Vermont, USA).
- Martin Claussen (Max-Planck-Institute for Meteorology, Hamburg, Germany)
- Paul J. Crutzen (Nobel Prize Laureate, 1995, Institute for Marine and Atmospheric Sciences, Utrecht University, the Netherlands)
- Daniel Pauly (Director, Fisheries Centre, University of British Columbia, Canada)
- Mike Summerfield (School of Geosciences, University of Edinburgh, United Kingdom)

Several outstanding scientists have also accepted invitation to deliver keynote addresses for each of the conference sub-topics.

### **Call for submissions of abstracts (Deadline 30<sup>th</sup> September 2008)**

Authors are invited to submit abstracts to the organizing committee. All abstracts submitted will be accepted for either an oral or poster presentation at the conference (to the limits of physical capacity). Abstracts will be collated into an electronic CD format and will be available for download from the conference website. The deadline for submission of abstracts is 30<sup>th</sup> September 2008 and no submission will be considered beyond that date.

Please submit abstracts in the following format and indicate your preference for oral or poster presentation to the following email address: [humboldt@afriacimatescience.org](mailto:humboldt@afriacimatescience.org)

**Page Setup:** A4, Margins: 2.5 cm top, bottom, left, right, Font: Verdana.

**Formatting:**

**Title** - all caps, 12pt bold, centred (followed by one 12pt blank line)

**Author(s)** - initials (no periods) followed by surname, multiple authors separated by commas, "and" before initials of last author of list, superscript number after surnames to link to addresses for multiple authors with different addresses - mixed case, 11pt bold, left aligned (followed by one 11pt blank line)

**Addresses** - one address per line, precede with superscript where required to link to author name(s) - mixed case, 10pt normal, left aligned (last address followed by one 10 pt blank line)

**Body Text** - 10pt normal, justified. First line of a new paragraph is not indented, each paragraph is followed by one 6pt blank line.

**Figures** should be black and white or greyscale (they will not be printed in colour).

**Figure captions** should be 9pt bold, directly underneath the figure, and the same width as the figure.

A sample abstract which illustrates these requirements is available on the conference website.

**N.B. the maximum abstract length is one A4 page in this format**



## **Registration (from 1<sup>st</sup> August 2008)**

Registration will be electronic only, via the conference website. The conference registration fee will be set at no more than ZAR 3500 but may be reduced according to the extent of sponsorship secured by the opening of registration on 1<sup>st</sup> August. The fee will include the regular conference material and social events (except for the conference dinner which will be charged for separately). Special dispensation for a limited number of delegates and bona fide African students will be offered (subject to sponsorship). Please note that registrations after 30<sup>th</sup> September and before 31<sup>st</sup> December 2008 will attract a 10% surcharge and registrations on or after 1<sup>st</sup> January 2009 will attract a 20% surcharge.

## **Logistics**

The conference will be hosted in the Kramer Building on the middle campus of the University of Cape Town, South Africa. Registration, accommodation, ground transport and other arrangements will be managed by *Global Conferences Africa*, a professional event management company. Please follow the links from the Conference Website (<http://www.africaclimatescience.org/Humboldt>) to the on-line registration form (available from 1<sup>st</sup> August 2008).

## **Accommodation**

The conference organizers have made block bookings at several hotels with a range of tariffs in and adjacent to the Cape Town Waterfront (a very popular tourist area with many restaurants, bars, and shops). A block booking has been made in student residences at the University of Cape Town. Transport between these hotels and residences and the Conference Venue will be provided as part of the registration fee. Delegates will be able to select, book and pay for accommodation as part of the on-line registration process which will be available from 1<sup>st</sup> August 2008. Please note that after 30<sup>th</sup> September 2008 un-booked rooms will be released back to the hotels and residences. January in Cape Town is the height of the tourist season and it may be very difficult, and more expensive, for you to secure accommodation unless this is done via the on-line registration process prior to 30<sup>th</sup> September 2008.

## **Organizing Committee**

Peter Fabian, EGU, TU, Munich, Germany; co-chair  
Maarten de Wit, AEON, UCT, South Africa; co-chair  
Neville Sweijd, ACCESS, CSIR, South Africa, co-chair

Isabelle Ansorge, John Compton, Woody Cotterill, Stephanie de Villiers, Andy Duncan, Juliet Hermes, Bruce Hewitson, Peter Kotzé, Guy Midgely, George Philander, Alakendra Roychoudhury, Frank Shillington

**PLEASE DISPLAY THIS CIRCULAR AND/OR MAKE IT AVAILABLE TO  
OTHER COLLEAGUES WHO MIGHT BE INTERESTED IN THIS  
CONFERENCE**