



First Circular (January 2008)

Fifth EGU Alexander von Humboldt International Conference

**Iphakade : Climate Changes and African Earth Systems
– past, present and future**

(Iphakade – xhosa for “observe the present and consider the past to ponder the future”)

Co-sponsors:

EGU – European Geosciences Union

AEON – Africa Earth Observatory Network

ACCESS – Africa Centre for Climate & Earth Systems Science

University of Cape Town, South Africa

January 12-16, 2009

**Preceded and/or followed by a Students/Young Scientists'
Workshop on Earth Systems Modelling**

Goal

To understand the processes that make earth a habitable planet and that maintain the environmental conditions that suit a great diversity of species, including ours, so well.

Because humans have started to significantly alter earth’s natural systems and disturb their balances, there is an urgent need of deeper understanding of these disequilibria so that appropriate action can be taken to avert, as yet, unpredictable changes to these systems. Across Africa, communication systems, infrastructures, and management of natural resources must adapt to an environment that will be irreversibly affected by changing sea levels, land management, magnetic fields, and climate systems.

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. In such an environment a robust foundation for Earth Stewardship Science can emerge.

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 first-order task of Iphakade is to establish with a high degree of certainty how to best differentiate natural from anthropogenic earth system changes, and to use this knowledge wisely to assess and economically evaluate global changes induced by humans, with particular reference to Africa.

Because Africa comprises about 21% of the earth's total continental and plate surface, changes affecting her cannot be left out of global models, as is presently often the case due to lack of observational data and intellectual capital. Collectively, this requires new mindsets, new research foci, and new technologies to forge a new multidisciplinary approach, bringing together a critical mass of specialists to catalyse science thinking, big and small, through which to provide new and detailed insight into how earth and life co-evolve.

Aim of the Conference

It is the aim of this interdisciplinary and international EGU Humboldt Conference to bring together earth system researchers from diverse specializations, largely involving scientists from African countries. Hosting an EGU Humboldt Conference in Cape Town will strengthen the discourse amongst African scientists and their international colleagues. With a shared vision of a sustainable Africa, this will send a powerful message to the African leadership to engage in scientific debate and to act with well informed agendas.

The students/young scientists' workshop preceding and/or following the conference aims at providing an introduction to Earth Systems and modelling applications. Strong participation by students from Africa is expected and will be catered for.

Conference Information

Broad Topics

Contributions from all fields of the Geosciences are welcome. In particular the conference will focus on:

- 1. Climate change and coupled systems**
- 2. Fluctuation in African Climate Systems**
- 3. Changing topography of Africa: coupled earth systems from core to space**
- 4. Palaeo-climate analyses in Africa and its surrounding oceans**
- 5. Economics and social issues of climate change**

We expect to have contributions, amongst others, on: ocean currents around Africa, African atmospheric circulation and weather patterns, solar radiation variability, magnetic field changes, African biosphere, African river basins and geomorphology, palaeo-ecodynamics, palaeoclimates, CO₂ sequestration, geothermal energy, ecological economics, natural resources, risk management, social engagement through outreach, and capacity building.

Conference Language

English

Venue

The 5th EGU Alexander von Humboldt International Conference and the preceding/following workshop will be held at the University of Cape Town, Rondebosch 7701, Cape Town, South Africa.

Scientific Program 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

Members: 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.

Logistics

The conference will be hosted in the Kramer Building on the campus of the University of Cape Town, South Africa. Cape Town is connected directly to Europe with up to 10 daily flights, with many more via Johannesburg which is also a gateway to many African countries. Registration, accommodation, ground transport and other arrangements will be managed by a professional event management company (Global Conferences Africa). More details will follow with second announcement.

Conference Fee

A conference registration fee will be charged for all delegates. A student discount will be offered for bona fide post-graduate students and some exemptions may be offered in special cases.

Second Circular

The Second Circular containing detailed information will be mailed during May 2008. Those who will have expressed their interest by then will automatically receive it.

To express your interest in this conference or to obtain additional information please contact Ms Pavs Pillay (humboldt@africaclimatescience.org).

Please display this Circular and/or make it available to other colleagues who might be interested in this conference.

