

Natural disasters of hydro-meteorological and geological origin

These disasters affect millions of African citizens, more than any other form of disaster. RS has a critical role to play in prediction, response and mitigation.

Ocean Synoptics and Weather

Distinct from marine weather, ocean weather is a new field that recognizes the fundamental importance of ocean dynamics and turbulence. This panel session will examine both the basic principles underlying ocean weather and the wide range of ocean science application areas that have been impacted by the availability of ocean altimetry, ocean vector winds and ocean color satellite observations.

Human and Environmental Health

Landscape epidemiology is an emerging application area for the use of remote sensing data. This panel session will explore the ways in which measurements of specific environmental variables, which are important for the growth and dispersal of health risks, are used to predict and mitigate disease propagation and pandemics.

Baseline Climate Identification and Global Change

Assessment of global change risks due to anthropogenic greenhouse gas emissions and land conversion requires the identification of a baseline climate state. This panel session will focus on the use of satellite observations to provide the global coverage needed to establish such a baseline, to monitor environmental changes and to assess their impacts.

Remote Sensing Education

The Technical Programme Committee is making an appeal to remote sensing experts to consider the opportunity of this large gathering of African scientists and students to contribute in the way of training courses. As well as the usual tutorials on the Sunday before the conference, we are keen to receive proposals for fuller course offerings in the week leading up to the conference. Please contact the Chair, TPC, directly, to start a dialogue.

Each Symposium day will begin with a Panel Session with invited presentations on the selected themes for the day. During the remainder of that day, and in parallel with the regular Technical Program, invited and regular oral and poster sessions will build on the day's themes. More information on the themes may be found on <http://www.igarss09.org>

Standard IGARSS Session Topics

Land	L1 Land Use and Land Cover Change L2 Soils and Soil Moisture L3 Forests and Vegetation L4 Wetlands and Inland Waters L5 Agro-ecosystems
Oceans	O1 Ocean Biology (Color) and Water Quality O2 Ocean Surface Winds and Currents O3 Ocean Temperature and Salinity O4 Ocean Altimetry
Atmosphere	M1 Precipitation and Clouds M2 Numerical Weather Prediction and Data Assimilation M3 Atmospheric Sounding M4 Aerosols and Atmospheric Chemistry
Cryosphere	C1 Land Ice and Snow C2 Sea Ice
Analysis Techniques	T1 Image Processing Techniques T2 Data Assimilation and Inverse Problems T3 Classification and Data Mining Techniques T4 Geographic Information Science
Applications	A1 Human Health and Landscape Epidemiology A2 Urban and Built Environment A3 Coastal and Wetlands A4 Geology and Solid Earth A5 Pollution and Contamination A6 Unexploded Ordnance and Landmine Remediation A7 Other
Electromagnetics and Radiative Transfer	E1 Microwave Scattering and Propagation E2 Optical and Infrared Modeling
Sensors and Platforms	S1 SAR Instruments, Missions and Calibration S2 SAR Processing S3 Active Microwave S4 Radiometer Instruments and Calibration S5 Lidar Sensors S6 Passive Optical and Hyperspectral Sensors S7 UAV and Airborne Platforms S8 Other
Education and Policy	P1 Data Management and Systems P2 Remote Sensing Data and Policy Decisions P3 Education and Remote Sensing.



*Earth Observation -
Origins to Applications*

**First Call for Abstracts
IGARSS'09 Cape Town**

**2009 IEEE International Geoscience
and Remote Sensing Symposium
July 13-17, 2009,
University of Cape Town,
South Africa**

Website: <http://www.igarss09.org/>

Abstract Submission:

<http://www.igarss09.org/Papers.asp>

Abstract Submission Deadline:

January 4, 2009



Invitation

On behalf of the IEEE Geoscience and Remote Sensing Society, the IGARSS'09 Organizing Committee, African Association for Remote Sensing of the Environment (AARSE) and the African remote sensing and earth science communities, we are pleased to welcome you to Cape Town for IGARSS 2009! IGARSS'09 will be the 29th annual symposium for GRSS and will continue the excellent tradition of gathering world-class scientists, engineers and educators engaged in the fields of geoscience and remote sensing to meet and present results of their latest research activities. Truly an international event, we anticipate about one thousand participants from all over the world to enjoy a week of technical sessions, tutorials, exhibits and social activities. This is the first time the event has been held on the African continent, and represents a unique opportunity to interact with a wide range of African remote sensing practitioners and discuss the issues relevant to developing nations. "Semper aliquid novi Africam adferre" - "Africa always brings something new" (Pliny the Elder). Efforts will be made to assist African scientists and university graduate students to attend IGARSS'09. Submission of an abstract is the first important step in obtaining support, so contributions from African RS practitioners will be particularly welcome.

Participation in IGARSS is open to all individuals interested in or working in the fields of geoscience and remote sensing. Abstracts received by the deadline will be considered for programme placement under the standard peer review process. Late abstracts may be refused without review. The IEEE IGARSS'09 Technical Program Committee will organize accepted abstracts into oral or interactive poster sessions, based upon the mode in which the material can best be presented, and the composition of high-quality oral and interactive sessions. Attention publishing authors! Only accepted papers that are presented at the Symposium in Cape Town will be published in the symposium proceedings and be assigned an IEEE GRSS publication reference.

IGARSS'09 KEY DATES

14 Sep 2008	Submission of proposals for invited sessions
26 Oct 2008	Notification of selected invited sessions
16 Nov 2008	Paper submission system on line
7 Dec 2008	Deadline for proposals for Tutorials
4 Jan 2009	Submission of Paper Abstracts for review
15 Feb 2009	Notification of selected Tutorials
15 March 2009	Paper selection on-line, registration opens
26 April 2009	Final submission of revised abstracts, registration of at least one author
17 May 2009	Early registration deadline
14 June 2009	Hotel registration deadline

21 June 2009	Online registration closes
21 June 2009	Final submission of full papers
12 July 2009	Tutorials and workshops
13–17 July 2009	IGARSS'09, Cape Town, South Africa

Publication of abstracts and proceedings

Please note the following concerning the distribution of abstracts and proceedings:

Electronic media containing all IGARSS'09 abstracts will be distributed to registered attendees at the registration desk.

Authors of accepted papers will have an opportunity to revise their abstracts for inclusion on the electronic media up until 26 April 2009.

The electronic system will enable full proceedings papers to be accepted until 21 June 2009.

Full papers will be made available to all attendees after the Symposium. Attendees may elect to receive a DVD through the mail, or be given access to a private website.

Only papers that are presented at the symposium by one of the listed authors, duly registered for the Symposium, will appear in the proceedings.

Abstract Submission Instructions

Abstract deadline is January 4, 2009 for both contributed and invited submissions.

- Log in to www.igarss09.org to submit abstracts (only on-line submissions will be accepted for review).
- Instructions on selecting topics for submissions will be included on the website.
- All abstracts must be written in English and contain a minimum of 500 words to be fairly reviewed.
- The maximum page limit for all abstracts is two single sided pages. Use Times New Roman font, 11 or 12 point, 1.5 line spacing. Paragraphs 6 mm indent on first line, 6 pt spacing after each paragraph.
- Include paper title (in bold, sentence case), presenting author, title, affiliation and email address at the top of each abstract. Names, titles and affiliations of co-authors.
- Abstracts should state clearly and concisely the problem, methodology used and central conclusions.
- Abstracts should include a bibliography to help reviewers place the contributions of the work into context.
- A maximum of three abstracts may be submitted by each presenting author, including both general and invited sessions.
- Authors are responsible for checking the status of their abstract by visiting the symposium website, www.igarss09.org after 15 March 2009. Acceptance letters will be sent via email only, and the results posted on the website.

Application Themes

The IGARSS'09 Technical Program will highlight themes that have a strong link to the development of the African continent, as well as themes that have international relevance.

A call for invited sessions is made (deadline 14 September 2008). Please contact the Chair, Technical Programme Committee directly, with a proposal for a session. A short justification should be made to assist in selection of a limited number of invited sessions. Successful applicants will be informed on 26 October 2008, to allow chairs to solicit papers for their sessions. Submissions to IGARSS'09 are especially encouraged for the following topics:

Assisting African Development Needs

An emphasis on applications of all types of remote sensing to problems in Africa, with a strong bias towards practical results. African practitioners are invited to present development issues for which it seems remote sensing derived information could be useful to communicate these needs to the wider community.

Space for Development: socio-economic benefits through space technology

Climate Change and Sustainability in Africa - Applications of Remote Sensing

Food security, African ecosystems and desertification, renewable energy site selection (wind & solar), water security and resources, invasive species in Serengeti and other sensitive areas.

Characterisation of savanna ecosystems using RS

Time series analysis of vegetation and change detection

Numerical Weather Prediction (NWP) and Radiance Data Assimilation

Weather forecast accuracy depends on the coverage and quality of observational data used to initialize numerical prediction models. This panel will explore how satellite measurements, improved modeling capabilities and advanced data assimilation systems may enable revolutionary advances in forecasting weather and natural hazards.

GEOSS 5 years on: A mid-term assessment

The Global Earth Observation System of Systems was one of the positive outcomes of the World Summit on Sustainable Development (WSSD), Johannesburg, 2002. GEOSS was set up as a cooperative scientific enterprise by several nations to harness the collective abilities, instrumental capabilities and data streams to address the ambitious development goals set by the WSSD. IEEE Geosciences and Remote Sensing Society (GRSS) has been an organizational associate of GEOSS, active in promoting remote sensing aspects of the GEOSS programme. Half-way through the proposed initial 10-year programme, it is appropriate to review and re-plan the successes of GEOSS, particularly the contributions of GEOSS to African sustainable development, and poverty and disaster alleviation.