

2012 | 2013
Deutsch-Südafrikanisches
Jahr der Wissenschaft
German-South African
Year of Science

Invitation to the 2nd one-day colloquium on

Data Integration Technologies for Earth System Modeling and Resource Management

Tuesday, 23 April 2013

8:00 – 16:00

Automated and objective information extraction from large multi-method geoscientific databases, such as space- and airborne imagery, airborne geophysical or hyperspectral sensing, is a key issue for Earth System Modeling and Resource Management. While data mining and pattern recognition tools, i.e. cluster analyses, artificial neural networks or Bayesian decision techniques, are routinely used by the remote sensing community to explore space- and airborne imagery, such techniques appear increasingly attractive to geophysicists since data production rate of modern geophysical systems exceeds traditional geophysical data evaluation and information extraction processes. This colloquium is the 2nd in the series to bring experts from the fields of geophysics, remote sensing and statistics together for an exchange of experiences on automated data integration, model zonation, detection of optimal sampling points constrained by geospatial information, and statistical modeling.

Who should attend (max. 40 delegates)

Researchers and practitioners from Applied Geophysics, Remote Sensing and Statistics.

Venue

Crystal / Garnet Room, CSIR International Convention Centre, Meiring Naudé, Pretoria
Directions to the CSIR ICC are available at <http://www.csiricc.co.za/map/index.php>

Organisers

PD Dr. Detlef Eberle (Council for Geoscience, Pretoria, South Africa)
Dr. Hendrik Paasche (Helmholtz Centre for Environmental Research – UFZ, Germany)
Dr. Sonali Das (Council for Scientific and Industrial Research, South Africa)

Registration Fee

None. However, confirmation of attendance necessary.

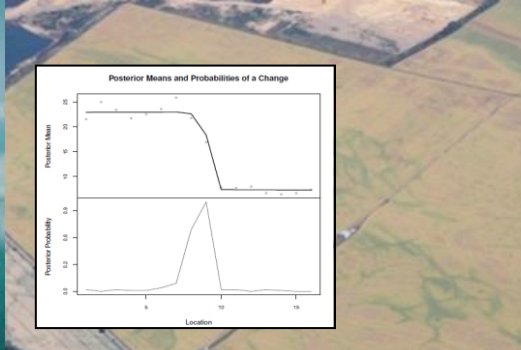
Registration (by email)

There is no registration fee. However, because of limited space and catering constraints, please confirm attendance by **April 15, 2013** with:

Dr. Sonali Das, Built Environment, CSIR, Pretoria
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Federal Ministry
of Education
and Research



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PROGRAM

Schedule time	Topic	Speaker
08:30 – 09:00	Welcome and Introduction to the German-South African Year of Science (YoS)	PD Dr. Detlef Eberle, <i>CGS Pretoria</i> , German Embassy Pretoria
09:00 – 09:40	Cluster analyses: Multi-functional tools for data integration, optimal sampling location and sparse target parameter extrapolation	Dr. Hendrik Paasche, <i>UFZ Leipzig-Germany</i>
09:40 – 10:20	Modeling soil functions by way of integrating geophysical methods for soil parameter predictions	Prof. Dr. Peter Dietrich, <i>UFZ Leipzig-Germany</i>
10:20 – 10:40	Morning coffee/tea	
10:40 – 11:20	Processing of geo-scientific data using neuronal networks: Basics, chances, experiences	Andreas Knobloch (MSc), <i>BEAK Consultancy</i> , <i>Freiberg - Germany</i>
11:20 – 12:00	How to work with incomplete and uncertain data?	Prof. Dr. Andrzej Kijko, Ms. Ansie Smit, <i>Aon Benfield Natural Hazard Centre, University of Pretoria</i>
12:00 – 13:00	Lunch	
13:00 - 13:40	Bayesian methods for geophysics applications	Dr. Sonali Das, <i>CSIR Pretoria</i>
13:40 – 14:20	Optimal prospective and retrospective geospatial sampling schemes	Dr. Pravesh Debba, <i>CSIR Pretoria</i>
14:20 – 14:40	Afternoon coffee/tea	
14:40 – 15:20	Data integration for vegetation species discrimination in various South African ecosystems	Ms. Nontembeko Dudeni-Tlhone, <i>CSIR Pretoria</i>
15:20 – 15:45	Wrap-up: How to join efforts to build a strong research community ?	PD Dr. Detlef Eberle, <i>CGS Pretoria</i> , Dr. Hendrik Paasche, <i>UFZ Leipzig</i>