

5th BELIEF Symposium & CHPC National Meeting 20090

*Advancing research competitiveness through collaboration:
towards an integrated South African Cyber-Infrastructure*

Monday 07 December 2009

| TIME | SPEAKER | TOPICS/TITLE |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| 08:00 | | Registration: Arrival Tea and Snacks |
| Theme: SA National Cyber-Infrastructure and BELIEF-II Partnership | | |
| 09:25 | Happy Sithole <i>Director: Centre for High Performance Computing (CHPC), Meraka Institute (Meraka), Council for Scientific and Industrial Research (CSIR)</i> | <u>Welcome Speech - HPC Progress and Response to the National Cyber-Infrastructure</u> |
| 09:30 | Daniel Adams <i>Chief Director: Department of Science and Technology (DST)</i> | Opening Speech – National Cyber-Infrastructure as a major driver in boosting South Africa’s R&D and HCD |
| 09:50 | Colin Wright <i>Manager: Cyberinfrastructure, Meraka, CSIR</i> | <u>Towards an integrated National Cyber-Infrastructure</u> |
| 10:05 | Happy Sithole <i>Director: CHPC, Meraka, CSIR</i> | <u>CHPC Progress and its response to the Nation Cyber-Infrastructure</u> |
| 10:20 | Stephen Benians <i>BELIEF Coordinator</i> | <u>Promoting e-Infrastructures – global and regional development</u> |
| 10:35 | Kostas Glinos <i>EU Commission Head of Unit "GÉANT & e-Infrastructure"</i> | EU’s position in assisting countries to further their e-Infrastructure/Cyber-Infrastructure development |
| 10:50 | Q&A | |
| 11:00 | | Morning Tea Interlude |
| Theme: The pillars of SA National Cyber-Infrastructure | | |
| 11:30 | Jeff Chen <i>Acting Operations Manager: CHPC, Meraka, CSIR</i> | <u>Harnessing an integrated National Cyber-Infrastructure ecosystem through research and education</u> |
| 11:45 | Dorah Thobye <i>Acting Technical Manager: CHPC, Meraka, CSIR</i> | <u>CHPC computational platforms – progress to date and future plans</u> |
| 12:00 | Christiaan Kuun <i>Project Manager: SANReN, Meraka, CSIR</i> | <u>SANReN: history, progress, future</u> |
| 12:15 | Colin Wright <i>Manager: Cyberinfrastructure, Meraka, CSIR</i> | <u>Very Large Data Base initiative for eResearch communities</u> |

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| 12:30 | Chris Petzer <i>Project Manager: CHPC, Meraka, CSIR</i> | <u>Preparing a facility to host Supercomputers: the CHPC Story</u> |
| 12:45 | Q&A | |
| 13:00 | | Networking Lunch |
| Theme: Cyber-Infrastructures for Education | | |
| 13:40 | Romilla Maharaj <i>Executive Director: HICD, National Research Foundation</i> | <u>The underpinning role of NRF in fostering an integrated cyberinfrastructure</u> |
| 14:00 | Malcolm Read <i>JISC Executive Secretary</i> | <u>JISC: Supporting e-Infrastructure for research in the UK</u> |
| 14:20 | Johan Eksteen <i>Regional Standards Officer, Microsoft South Africa and West, East, Central Africa & The Indian Ocean Islands</i> | <u>The potential and impact of e-Infrastructure in education In Africa</u> |
| 14:40 | Ari Turunen <i>CSC - Finnish centre for high-performance computing and networking</i> | <u>PRACE: Building a new e-Infrastructure in Europe-means for influencing science communities and stake holders</u> |
| 15:00 | Q&A | |
| 15:20 | | Afternoon Tea Interlude |
| Theme: The International Experience | | |
| 15:50 | Cynthia McIntyre <i>Senior Vice President, Strategic Operations and HPC Initiative, Council on Competitiveness (US)</i> | <u>High performance computing: industrial research & development to production</u> |
| 16:10 | Bob Jones <i>EGEE/EGI Coordinator</i> | <u>From EGEE to EGI: building the European e-Infrastructure</u> |
| 16:30 | Hermann Lederer <i>Deputy Director, Garching Computing Centre of the Max Planck Society</i> | <u>The distributed European infrastructure for supercomputing applications (DEISA 2): goals, strategies and achievements</u> |
| 16:50 | Leif Laaksonen <i>e-IRG Chair</i> | <u>Increasing needs in the e-Infrastructures for supporting e-Science</u> |
| 17:10 | Q&A | |
| 17:30 | Round Table Discussion Theme: <i>Exploring the way forward in creating a sustainable growth of Africa and South African National Cyber-Infrastructure, research and applications through a range of purposeful partnerships</i> | Discussion topics; <ul style="list-style-type: none"> - Funding agencies' commitment and long-term goals - Education as the cornerstones (towards creating a critical mass of skilled researchers and bridged the digital divide) - Best practices: lessons learned from our international partners and how to apply them in South Africa and Africa - Fostering collaboration amongst Africans and between Africa and international partners |

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| 18:10 | | Remark of Day 1 |
| 18:30 | | Cocktail Dinner |

Tuesday 08 December 2009

| TIME | SPEAKER | TOPICS/TITLE |
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| 08:00 | | Registration: Arrival Tea and Snacks |
| Theme: Research and applications of Cyber-Infrastructures – Part I | | |
| 09:15 | Alex Delis <i>National and Kapodistrian University of Athens, BELIEF-II Symposia Coordinator</i> | Setting the Theme |
| 09:20 | Willem Landman <i>Senior Scientist, NRE, CSIR,</i> | <u>Supercomputing for weather and climate modelling: convenience or necessity</u> |
| 09:40 | Federico Ruggieri <i>EGEE & INFN</i> | <u>Scientific applications across the world, strategies and examples</u> |
| 10:00 | Bruce Spottiswoode <i>Director, Combined Universities Brain Imaging Centre</i> | <u>The growing computational demand of medical imaging</u> |
| 10:20 | GLOBAL Plaza | <p>Connecting remote sites - collaborating over global Cyber-Infrastructures</p> <ul style="list-style-type: none"> • <u>Georgia-Tabatadze</u> • <u>Juan Quemada</u> • <u>Peter Kirstein</u> |
| 10:40 | Q&A | |
| 10:50 | | Morning Tea Interlude |
| Theme: Research and applications of Cyber-Infrastructures – Part II | | |
| 11:20 | Scott Hazelhurst <i>University of Witwatersrand</i> | <u>The interdependent relationship between national bioinformatics platforms and National Cyber-Infrastructure</u> |
| 11:40 | Faye Reagon <i>Director: Knowledge Services Human Sciences Research Council</i> | <u>Managing knowledge in the social sciences: the challenge of data curation</u> |
| 12:00 | Chris Schoultz <i>Director Character Matters</i> | Impact of Cyber-Infrastructure on the South African animation industry |
| 12:20 | Justin Jonas <i>Associate Director: Science & Engineering SKA South Africa</i> | <u>Astronomical data rates and heterogeneous computing pipelines</u> |
| 12:40 | Q&A | |

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| 12:50 | | Networking Lunch |
| Theme: Key Technology Tools Relevant to Cyber-Infrastructure | | |
| 13:50 | Yannis Ioannidis <i>National and Kapodistrian University of Athens</i> | <u>DRIVER leads to OpenAIRE: open access to European repositories and beyond</u> |
| 14:10 | Franco Zoppi <i>Research Associate, CNR-ISTI (Information Science and Technologies Institute)</i> | <u>The D4Science e-Infrastructure – supporting eScience communities</u> |
| 14:30 | Michael Inggs <i>Head of Advanced Compute Engineering Laboratory, UCT / CHPC, Meraka, CSIR</i> | <u>The need for parallel thinking</u> |
| 14:50 | Alan Langman <i>Sub-system Manager DSP, MeerKAT/SKA</i> | <u>Bidirectional collateral benefits of Cyber-Infrastructure and radio astronomy investments</u> |
| 15:10 | Fisseha Mekuria <i>Principal Research Scientist, CSIR Modelling and Digital Science, Mobile Computing and Security Unit</i> | <u>HPC as a cloud computing resource in mobile computing R&D</u> |
| 15:30 | Q&A | |
| 15:40 | | Afternoon Tea Interlude |
| Theme: Grid, Network and Support | | |
| 16:00 | Tryfon Chiotis <i>GRNET</i> | <u>Sustainable regional development for e-Infrastructures: a case study</u> |
| 16:20 | Peter Kirstein <i>University College London</i> | <u>IPv6 – status and prospects</u> |
| 16:40 | Attie Juyn <i>Executive Director for ICT, North West University</i> | <u>ICT support for HPC and grid</u> |
| 17:00 | Bruce Becker <i>SAGrid Coordinator, Meraka Institute, CSIR</i> | <u>Grid computing in South Africa</u> |
| 17:20 | Q&A | |
| 17:30 | Round Table Discussion Themes: <i>Creating research partnership</i> | Discussion Topics - How should Cyber-Infrastructure work with the researchers and enhance their research output - In pursue of providing turn-key solution to the researchers; providing technical support to the researchers - How could Cyber-Infrastructure leverage international partnership to benefit our researchers |
| 18:30 | | Cocktail Dinner |

Breakaway Sessions

Wednesday 09 December 2009 - Friday 11 December 2009

Each breakaway session will be coordinated by the co-chairs. Unless it is previously specified by the co-chairs, the format of the breakaway sessions will be as follows:

- 08h00 – Arrival
- 09h00 – Morning Session 1
- 10h30 – *Morning Tea Interlude*
- 11h00 – Morning Session 2
- 12h30 – *Lunch Break*
- 13h30 – Afternoon Session
- 15h30 – *Afternoon Tea Interlude*
- 16h00 – Afternoon Session 2
- 17h00 – End

Wednesday 09 December 2009

Breakaway Sessions (Discussion, Presentations and Workshops)

Common theme – discussion on how cyber-infrastructure can collaborate with researchers of each particular scientific domain

- Microsoft HPC++ (*Morning*)
- Isabel Workshop (*Afternoon*)
- Bio-informatics, Bio-Technology, Telemedicine and eHealth
- Many-Core Processing and Advanced Computer Engineering
- Coupled Climate Model Development and Application
- HPC Computer Aided Science & Engineering Discussion
- ICT Practitioners
- Application of Monte Carlo Simulations in Nuclear Science
- Computational Chemistry

Thursday 10 December 2009

Breakaway Sessions (Discussion and Hands-on Workshops)

- GPU Programming Workshop
- Coupled Climate Model Development and Application
- OpenFOAM Advanced Course
- VLDB Stakeholder Engagement (**by invitation only**)
- Application of Monte Carlo Simulations in Nuclear Science

Friday 11 December 2009

Breakaway Sessions (Hands-on Workshops)

- GPU Programming Workshop

- Coupled Climate Model Development and Application
- OpenFOAM Advanced Course

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