

SA grid school 2008



The South African Grid School is a 3-day course on large-scale and high-performance computing. It will take place on **July 23-25th 2008** at the **University of the Witwatersrand, Johannesburg**.

Overview

The Open Science Grid (OSG), a major US grid infrastructure, provides scientists with more than 70 production sites offering over 20,000 CPUs and 4 Petabytes of storage to advance their research. This organization includes members from particle and nuclear physics, astrophysics, bioinformatics, gravitational-wave science and computer science collaborations, all contributing to the development of the OSG and benefiting from advances in grid technology. Applications in other areas of science, such as mathematics, medical imaging and nanotechnology can also gain from the interactions with OSG through its partnership with local and regional grids or their communities' use of the Virtual Data Toolkit software stack.

We invite you to learn more about grid and high throughput computing and its implications in various research areas through this intensive OSG course that introduces the techniques of grid and distributed computing for science and engineering with hands-on training in the use of large-scale grid computing resources.

The workshop will focus on enabling the use of OSG and TeraGrid cyberinfrastructure to perform large-scale computations and data-intensive processing in different application domains. Participants will learn how to use grids of thousands of processors and will be able to continue to use these resources for their research after the course completion.

The workshop will cover:

- * Overview of distributed computing concepts and tools
- * Concepts, tools, and techniques of grid computing
- * Building a grid
- * Discovering and using grid resources
- * Grid scheduling and distributed data management
- * Web service and grid service concepts
- * Techniques for workflow and collaboration
- * Grid computing in a South African context
- * Various high-performance computing related topics



Undergraduate and graduate students, researchers, educators and professionals in engineering, computer science, or any scientific, data-or computing-intensive discipline may apply. Applicants should have at least intermediate programming skills (one to two semesters experience in C/C++, Java, Perl, and/or Python) and hands-on experience with UNIX / Linux in a networked environment.

The course contents of a previous Grid School can be found at <https://twiki.grid.iu.edu/twiki/bin/view/Education/GreatPlainsGridSchool2007>.

A more detailed programme will be put up closer to the date of the workshop.

Speakers

The workshop will have a combination of International and local speakers. Staff from the Open Science Grid will present the OSG section. In addition, local speakers are invited to give

presentations on topics related to high-performance computing.

Registration

To register, fill in the form on the [registration page](#). Registration closes 13 June 2008.

Cost

The fee for the conference is R1 500. This includes lunches, as well as a braai (barbeque) and a banquet dinner. Accommodation and travel can be negotiated with the event coordinators

Contact details and funding opportunities

For more information, contact Norman Ives or Martin Cook at gridschool@neo.phys.wits.ac.za.

Fax number for the School of Physics at the University of the Witwatersrand: +2711 717 6879.
Please mark as "Att: Norman Ives"

Funding is available for students wishing to attend. Those wishing to receive support will need to submit a brief motivation and a letter of support from their supervisor. **Please note that if a student is granted financial support, and does not attend the grid school, the supporting supervisor will be charged the full fees (R1 500 + costs of any accommodation booked).**