High Performance Computing for Sustainable Development

ICTP

17 - 21 April 2023
Stellenbosch, South Africa

The joint ICTP, NITheCS and CHPC School has the goal of providing early career scientists with technical guidance and best practices on advanced computing tools, fundamental for modern quantitative sciences. The program includes a mix of lectures and practicals, focusing on a wide range of topics from HPC, to ML/AI and QC.

Description:

School participants will learn best practices commonly applied in modern computational research to extend scientific frontiers in fields of direct impact for sustainable development, both through the analysis of large, rich datasets and through the simulations of physical processes. Lectures on selected research topics will showcase major technical issues across several scientific fields, from Astrophysics to Biophysics and Climate Sciences.

A series of tutorials will complete the program, providing participants with hands-on experience on an extended set of practical aspects:

- Scaling 3D computational codes on a large scale facility for HPC
- I/O and Visualization
- GPGPU
- HPC for ML
- Deep Learning
- Applied QC

Directors:

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ICTP Scientific Contact:

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Speakers:

S. ABBA OMAR, ICTP, Italy
O. AKIN-OJO, ICTP EAIFR, Rwanda
A. BALLON, Xanadu, Canada
M.-J. BOPAPE, National Research Foundation South African Environmental Observation Network, South Africa
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A. DI PIERRO, Università di Verona, Italy
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A. MAHOMED ABBAS, UKZN, South Africa
S. MCFARTHING, Qunova Computing, South Africa
M. NASILA, First National Bank, South Africa
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How to apply:

Online application:
http://indico.ictp.it/event/10162/

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries.
There is no registration fee.

Deadlines:

for applicants requesting visa support
15 February 2023

for all other applicants
13 March 2023

NICIS — NATIONAL INTEGRATED CYBERINFRASTRUCTURE SYSTEM — CHPC

NITheCS — National Institute for Theoretical and Computational Sciences

NICIS — NATIONAL INTEGRATED CYBERINFRASTRUCTURE SYSTEM

ICTP — The Abdus Salam International Centre for Theoretical Physics
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Trieste, Italy

IAEA