The Abdus Salam
**International Centre
for Theoretical Physics**

IAEA
International Atomic Energy Agency

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60 ICTP
1964–2024

School on Parallel Programming and Parallel Architecture for High Performance Computing

AN ICTP 60TH ANNIVERSARY SATELLITE EVENT

Description:

This school has the goal of teaching participating scientists basic parallel programming paradigms and tools for scientific computing. Through an intensive programme combining lectures and exercises with focus on practical skills, it shall provide a foundation for future computational research using HPC. The ideal candidate is an early career scientist that either will start soon or has already started working on a research project strongly tied to intensive computing for simulations and/or data analysis. Providing a referral letter from the PI supervising the project is strongly recommended.

MORE DETAILS:

Participants will learn fundamental techniques in parallel programming, GPU programming and machine learning. The target is to improve the efficiency of their research workflows, and to parallelize them where possible and meaningful. Lectures are meant to provide an overview and relevant references on the presented topics, while the hands-on sessions will allow participants to practice on small example problems of general scientific interest. The programme specifically addresses the needs of scientists using, writing, or modifying modern workflows for scientific computing. During second week participants will work on applied project of parallel programming of their own choosing if it fits into the scope of the workshop, otherwise assigned by the lecturers on a range of typical problems.

MAIN PRESENTED TOPICS:

Building of software environments for scientific computing
Parallel programming tools (MPI & OpenMP)
GPU Computing
Machine Learning
Mixing of compiled and scripting languages

LECTURERS:

Serafina DI GIOIA, ICTP, Italy
Ivan GIROTTO, ICTP, Italy
Axel KOHLMEYER, Temple University, USA
Trung NGUYEN, University of Chicago, USA

22 April - 3 May 2024

Kathmandu, Nepal

Deadline:
19 February 2024

DIRECTORS:

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FURTHER INFORMATION:

E-mail: smr3935@ictp.it

Web: https://indico.ictp.it/event/10473/

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.