

# Latin American Introductory School to Parallel Programming and Parallel Architecture for High Performance Computing



**12 to 23 February 2018**  
**CINVESTAV and ININ, Ocoyoacac, Mexico**

Further information:

<http://indico.ictp.it/event/8344/smr3187@ictp.it>

The School has the goal of teaching participating scientists about modern computer hardware and programming to provide a foundation for future computational research using High-Performance Computing (HPC). Participants will go through an intensive program with focus on practical skills.

## Description:

Participants to the School will learn to improve the efficiency of their research codes and to parallelize them. Lectures on a selection of technical aspects of modern HPC hardware will be mixed with introductions to widely used parallel programming tools and libraries. The hands-on sessions will allow participants to practice on small example problems of general scientific interest. Example topics will cover numerical methods, parallel strategies, as well as data management. The program is specifically addressing the needs of scientists using, writing, or modifying HPC applications will not assume, require, or provide significant IT and HPC resource management skills. It will be mainly based on fundamental HPC-relevant features in widely used scientific software for high-performance computing:

- Computer architectures for HPC and how to optimize for them
- Parallel programming tools (MPI & OpenMP)
- Portable, flexible and parallel I/O (HDF5)
- Best practices of parallel programming
- Floating-point math
- High-Performance libraries for the solution of common math problems

## How to apply:

Online application:  
<http://indico.ictp.it/event/8344>

Female scientists are encouraged to apply.

## Grants:

A limited number of grants are available to support the attendance of selected participants from developing countries, with priority given to young scientists from Latin America. Accommodation and meals are covered at the Campus for all selected participants. There is no registration fee.

## Directors:

J. Klapp, ININ and Cinvestav-Abacus  
I. Gitler, Cinvestav-Abacus  
L. Sigalotti, UAM Azcapotzalco  
E. Santos Rodríguez, MCTP  
M. Cruchaga, Universidad de Santiago de Chile

## Lecturers:

R. Berger, Temple University  
G. Pringle, EPCC  
I. Girotto, ICTP

## ICTP Scientific Contact:

I. Girotto, ICTP

## Deadline:

**26 November 2017**



The Abdus Salam  
International Centre  
for Theoretical Physics  
[www.ictp.it](http://www.ictp.it)  
Trieste, Italy

