The eighth edition of the INFN International School on "Architectures,
tools
and methodologies for developing efficient large scale scientific
computing applications - ESC16"
will be held in Bertinoro (Italy) from the 24th to the 29th October 2016.

The school is mostly targeted to PhD students, post-docs and young
researchers
who are actively involved with the development of scientific
applications and systems.
Familiarity and experience with basic concepts of modern OO languages,
in particular with C++ language, are desirable prerequisites to attend
the school.

The program of this year is structured along two main tracks:

The basics of efficient programming:

 * New processor architectures
 * Efficient floating point computation
 * Tools and methodologies for improving performance
 * Efficient exploitation of the C++ language
 * Managing memory usage

Parallel programming for scientific applications:

 * Introduction, OpenMP programming
 * GPU architectures and heterogeneous programming
 * Effective vectorization
 * Introduction to OpenCL and CUDA
 * Cluster computing

Lectures will be interspersed with tutorial and practical sessions,
providing opportunities for direct applications of optimization tools
and technologies as well as for interactions among students, lecturers
and tutors.

Detailed agenda and further information to apply to ESC16
are available on the school web site
https://web.infn.it/esc16/

The deadline for application is: *15 September 2016*.

Mauro Morandin
On behalf of the International Scientific Committee