Subject: X edition of the School ESC (Efficient Scientific Computing) Bertinoro - Italy 22 - 27 October 2018
Posted by StefanoSpataro on Wed, 27 Jun 2018 09:05:19 GMT
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X edition of the School ESC (Efficient Scientific Computing)
Bertinoro - Italy
22 - 27 October 2018

The tenth edition of the INFN International School on "Architectures, tools and methodologies for developing efficient large scale scientific computing applications"

ESC18 - EFFICIENT SCIENTIFIC COMPUTING

will be held in Bertinoro (Forlì cesena, Italy) from the 22nd to the 27th October 2018.

The aim of the ESC school is to offer the participants the opportunity to improve their computing competences,
learning from qualified and experiences scientists how to best exploit modern hardware and software technologies
in their daily scientific work.
The program proposes introductory lectures on trends in hardware architectures and parallel programming, with more in-depth lessons on modern C++,
effective memory usage, floating-point computation and programming in a heterogeneous world combining multi-threading, GPUs and clusters.

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:
Modern processor architectures
Efficient floating-point computation
Tools and methodologies for improved performance
Efficient exploitation of modern C++
Managing memory usage
Parallel programming for scientific applications:
Heterogeneous architectures
Threading Building Blocks programming
Effective vectorization
GP-GPU programming with CUDA
Cluster computing with MPI

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.

Further information to apply to ESC18 are available on the school web site:

https://web.infn.it/esc/

The deadline for application is: 16 September 2018.

Mauro Morandin
On behalf of the International Scientific Committee