Subject: International school on scientific computing, Bertinoro (Italy), 19-25 October 2014
Posted by StefanoSpataro on Wed, 25 Jun 2014 11:57:49 GMT
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International school on "Architectures, tools and methodologies for developing efficient large scale scientific computing"

Bertinoro (Italy), 19-25 October 2014

The school offers a limited number of young students and researchers an invaluable opportunity to learn from very qualified and experienced scientists how to exploit at best the evolution of modern computing systems used in doing science.
Participants will learn how the technology is evolving, which are the most critical aspects for developing efficient applications for modern processors, why mastering the new heterogeneous architectures encompassing a variety of devices like GPUs, accelerators, FPGAs, etc. has become so important for future science and engineering and which approaches can be more effective in parallelizing scientific applications.

https://web2.infn.it/esc14/

Subject: Re: International school on scientific computing, Bertinoro (Italy), 19-25 October 2014
Posted by StefanoSpataro on Wed, 03 Sep 2014 15:17:19 GMT
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The sixth edition of the INFN International School on "Architectures, tools and methodologies for developing efficient large scale scientific computing applications - ESC14"
will be held in Bertinoro (Italy) from the 19th to the 25th of October 2014.

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 ESC14 are available on the school web site https://web2.infn.it/esc14/ The deadline for application is: *15 September 2014*.

Mauro Morandin
On behalf of the International Scientific Committee
