

# HPC-Europa2

Pan-European Research Infrastructure on High Performance Computing

Ivan Spisso,  
the  
protagonist of  
September  
success story  
column



Welcome to the sixteenth edition of the HPC-Europa2 newsletter! This issue is edited by CINECA and focuses on the role of hosts in HPC-Europa2 project.

This issue contains also the first part of : HPC-Europa2 visitors success story column.

## HPC-Europa videoconference tutorial on OpenMP

Thursday 30th September at 11:00 (CEST)

The speaker will be Dr. Alejandro Duran from BSC in Barcelona.

The talk will be an introduction to the basics of OpenMP.

### Abstract

OpenMP is the de facto standard for parallel programming in shared-memory architectures

Jointly developed by a consortium of industry and academic institutions it is supported by all major compilers. It allows to decorate Fortran, C and C++ programs with extensions that allow the compiler to generate a version of the program that will run in parallel machines.

In this talk we will explore the development of the language and its key elements and concepts. We will analyze the strengths and weaknesses of the language. Last we will do a quick peek at the future roadmap of the language.

Please let us know ([access@hpc-europa.org](mailto:access@hpc-europa.org)) if you would like to attend, and we will send you the technical details. Note that to join via web browser, you need to have Internet Explorer and QuickTime installed.

**Next 2010 call for applications deadline is:  
15 November, 28th Call**

edited by  
**CINECA**

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**IVAN SPISSO** I was born in Salemi, Italy, in 1977. I graduated as a MEng Aeronautical Engineer from the University of Palermo, Italy, in 2003. I obtained an MSc in "Satellites and orbiting platforms" from the University of Rome 'La Sapienza', in 2005. I was awarded, in 2006, a three-year Marie Curie Host Fellowships for Early Stage Research Training at the Department of Engineering, University of Leicester, UK. For my PhD, I wrote and validated a prefactored high-order compact scheme for aeroacoustic applications, in collaboration with several European universities.

During my doctoral study, I have attended, in 2007, the "Summer school on parallel computing" at CINECA where I had the chance to appreciate the competencies and expertises of CINECA's staff. At the end of my fellowship, in 2009, I have been awarded of the HPC-Europa2 grant "Development of a multi-block interface for a high-order compact scheme applied to sound scattering problems in aeronautics"; this HPC-Europa2 project aimed at optimizing the code for the specific machine used, the IBM Power 6 (SP6), implementing an efficient MPI parallelization, and testing its efficiency and scalability on the CINECA's SP6. The CINECA's staff have been very useful in the achievement of these goals, and they gave me the possibility to master my HPC's skills and expertises, thanks to their high-level transfer of knowledge capabilities. I have acquired the knowledge of the state-of-the-art tools and expertises nowadays necessary for computational scientists. Nevertheless, they gave me full logistical support (travel and accommodation) in planning my visit and during my stay at CINECA. During my HPC-Europa2 visit, I have attended the 2009 Transnational Access Meeting (TAM) that gave me the opportunity to meet HPC-Europa users and the staff member from across the European HPC centers. It allowed me to grasp the multi-disciplinarity of the research that takes place at these centres, which spans a wide range of scientific fields.

The HPC-Europa2 fellowship opened me the door for a job opportunity at CINECA. From July 2010, I have joined the Super Computing Application and Innovation (SCAI) group at CINECA. My duties are support to industrial and academic research in computational fluid dynamics (CFD), writing for funding proposal, and development and validation of open-source CFD codes.

## Latest 10 new entries in HPC-Europa2 hosts

HPC-Europa2 visitors work on their own research projects, in collaboration with a local host researcher sharing similar research interests. The local hosts are from any of more than 200 research groups associated with the seven HPC-Europa2 Transnational Access sites: CINECA, EPCC, BSC, HLRS, GENCI, SARA, CSC.

### Latest 10 new entries in HPC-Europa2 hosts:

1. Zanasi Riccardo (ITALY), Salerno University, Chemistry Department
2. Merelli Emanuela (ITALY), Camerino University, Computer Science Department
3. Buffa Annalisa (ITALY), CNR, Applied Mathematics and Information Technology Institute
4. Parisel Olivier (FRANCE), Universite Pierre et Marie Curie, Laboratoire de chimie théorique
5. Salonen Eppu (FINLAND), Aalto University, Applied Physics Department
6. Orponen Pekka (FINLAND), Aalto University, Information and Computer Science Department
7. Kaski Petteri (FINLAND), Aalto University, Information and Computer Science Department
8. Bode Arndt (GERMANY), LRZ - Leibniz-Rechenzentrum, Computer Science Department
9. Juga Jarmo (FINLAND), University of Helsinki, Department of Agricultural Sciences
10. Slater Ben (UNITED KINGDOM), UCL, Chemistry Department

### "How do I identify a suitable host and what should I do if I cannot find one before the application deadline?"

Before you submit your application, we ask you to make every possible effort to identify at least one host researcher in one of our associated research institutes. We believe that you are the best person to do this, as you know your own field of research better than we do, and therefore you are better able to judge the potential match in research interests between yourself and a possible host.

To help you with this task, we maintain a [list of associated host institutions with their URLs](#). The list of hosts is not exclusive, and new hosts can always be added. If your proposed host is not on our list, please provide us with their name and contact details, so that we can register them as an associated host.

This stage of your application is extremely important, as the match of research interests and strength of support from the host are among the main criteria for the selection of HPC-Europa2 applications, and can often determine whether or not an application is successful.

However, if you are having difficulties identifying a suitable host, or even if you are unsure that you have made the right choice(s), please do not hesitate to contact us at [access@hpc-europa.org](mailto:access@hpc-europa.org) and we will do our best to help. When contacting us, please do not forget to include a short summary of your current research interests.

