

HPC-Europa2

Pan-European Research Infrastructure on High Performance Computing

City of Helsinki



City of Helsinki



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Finland in a nut shell:
 5.3 million people (17 people per sq km)
 1.8 million saunas (500 are traditional smoke saunas)
 180,000 islands 188,000 lakes (10% of the total area)
 465,000 summer cottages
 35 national parks
 5.2 million mobile phones

Welcome to the fourth edition of the HPC-Europa2 newsletter! This issue is edited by CINECA and focuses on the research that one of CSC's HPC-Europa2 visitors has performed using the HPC facility at CSC.

To find out more about the profile of our HPC-Europa2 visitors, the type of work they have been doing, and their project achievements have a look at <http://visitors.hpc-europa.eu/>

Next call **deadlines**: 15 September 2009 , 15 November 2009

The next annual Transnational Access Meeting (TAM), will be organized by GENCI-CINES and held in Montpellier on October 2009.

The Transnational Access Meeting (TAM):

- offers the users a unique opportunity to meet, present their work and exchange experiences
- allows the members of the selection panel to verify the users achievements
- is an opportunity for the consortium to gather feedback on the users' satisfaction

Welcome to the 16th
European PVM/MPI
Users' Group Meeting

Espoo, Finland
September 7 - 10, 2009

www.csc.fi/english/pages/pvmmpi09/welcome

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In Espoo, Finland, September 7 - 10, 2009

EuroPVM/MPI 2009
SEP 7 - 10, 2009, Espoo, Finland

PVM/MPI Users' Group Meeting is a biennial event for high performance parallel programming in the message passing paradigm. It is the most important meeting in the world for PVM and MPI users. All accepted abstracts are presented at the event and the conference is held at the Helsinki Convention Center.

Topics of interest for the meeting include:

- PVM and MPI implementations and experiences
- Latest developments in PVM and MPI
- Advances in high performance computing clusters and grid environments
- New message passing and hybrid parallel programming paradigms
- High performance parallel programming
- Interactions between message passing software and hardware
- Applications in message passing environments
- Performance evaluation of PVM and MPI applications
- Tools and environments for PVM and MPI
- Applications using the message passing paradigm
- Applications in science and engineering based on message passing

COMMITTEE
 General Chair: Jack Dongarra, University of Tennessee, USA
 Program Committee Chair: Jan Brdicka, Czech Academy of Sciences, Finland
 Program Committee Co-Chair: Jukka Korpela and Jouni Paakkonen, CSC - IT Center for Science, Finland
 Local organizing committee chair: The Chair, CSC - IT Center for Science, Finland

IMPORTANT DATES OF EUROPEAN PVM/MPI CONFERENCE
 Submission of full papers and abstracts: April 16th, 2009
 Notification of authors: May 15th, 2009
 Camera-ready papers: June 16th, 2009
 Final program: September 17th, 2009
 Conference: Helsinki, Finland: September 8th-10th, 2009

ACCEPTED PAPERS
 Submission of papers: May 16th, 2009
 Notification of authors: May 20th, 2009
 Camera-ready papers: July 10th, 2009

PROCEEDINGS
 The conference proceedings consisting of abstracts of extended talks, the papers, and the page articles for the papers will be published by Springer in the USCS series. Authors are strongly encouraged to make available the manuscripts for publication to facilitate the publication process.

CONFERENCE VENUE
 Helsinki Convention Center (www.helsinki.fi/venue).
 Further information: www.csc.fi/pvmmpi09/

ORGANIZED AND HOSTED BY CSC - IT CENTER FOR SCIENCE
www.csc.fi/pvmmpi09/

FINLAND IN FEBRUARY: COMPUTING BETWEEN ICED SEA AND THE SNOW-COVERED PLAINS

Claudio Manzato received funding from the HPC-Europa2 Transnational Access programme for a visit to Finland in February.

He visited the Department of Applied Physics at Helsinki University of Technology (<http://tfy.tkk.fi/comp/>) to work on his project "Statistical fracture of brittle porous media", focusing on condensed matter physics.

To carry out his simulations of statistical fractures in nanoscience, Claudio mainly used the supercomputer "Louhi" at CSC (Finnish IT Center for Science, www.csc.fi). Technical support (eg with compiling and linking the code) was provided by CSC.

Your impressions of Finland and Helsinki-Otaniemi area? Was it easy for a foreigner to settle in?

I liked Helsinki very much. I love to discover new places, and also I love cold climates and nature. I was also very happy to be in Helsinki in February. Although what struck me most in Helsinki is the natural scenery in which it is immersed, between the iced sea and the snow-covered plains, I also enjoyed the diverse cultural offering of the city, including the museums and the architectural beauties. My only dislike is that I did not have much time for touring the city and the surroundings.

As a foreigner, I had no problems to accommodate myself in the city. I lived near the city center, and almost all services are easy to find and to utilize. The English language is widespread and the Finnish people are courteous and hospitable.

How did you find the quality of life?

The quality of life in Helsinki is very good. I found a very organized and efficient city in all respects. I was housed near the center of the city, and I found all I needed within a short distance. The public services and the transport are very efficient and moving all around the city and the surroundings was easy. I was also especially pleased by the variety and the level of the cultural and environmental offering, equivalent to those of bigger cities.

What about the science community (CSC and Helsinki University of Technology)? Was it beneficial for you?

I found a very active science community. I was very pleased with working with HUT and CSC people. To closely collaborate with people researching in the same field and to have access to HUT facilities and support --at a walking distance-- allowed me to carry out my work proficiently. It was also very useful to be in contact with the experiments related to my (theoretical) research field. I find that working within a different community was beneficial, not only for my particular work but also to get better insight into the state of the related science.

I believe that it is very fruitful, regardless of the specific field of interest, to have the possibility to collaborate and exchange ideas and opinions with different people who work in a different manner. Visiting new places, made possible with the HPC-Europa project, is of fundamental importance because it gives the researcher a chance to exchange and acquire new ideas and methods.

What suggestions would you like to give for us who will take care of the exchange?

Working in a foreign town for a period of time not so short, neither so long, one needs to adapt soon to this new environment. One can't live as a tourist, but there's not enough time to discover all the places which one needs, as markets, banks, restaurants, public transportation. Unfortunately, almost all guides that can be found are tourist-oriented and not so useful for a "temporary resident". I think it would be useful to supply a small booklet with information about the location of the essential services. Also a small section on the citylife, including business hours, transportation service, and local habits would be nice. One can surely find all this information by himself, but I think that to have it all pre-collected would help.

And, of course, a survival vocabulary about the Finnish food names would be especially helpful.

Are you willing to spend more time in Helsinki-Otaniemi area, at CSC and Helsinki University of Technology?

Yes. I hope to return there, both for tourist and work reasons.

I find it very useful to continue the collaboration with CSC and HUT. Just as for my research it is fundamental to collaborate with HUT people, so is the opportunity to have access to the CSC facilities and support. The helpfulness I found, without even asking increases my will.

Ari Turunen, CSC

Brief Curriculum Vitae

Claudio Manzato was born in Varese on October 31, 1977. He is a 2nd year Ph.D. Student, Physics Dept, University of Modena e Reggio Emilia, Modena, Italy. Below he tells us a bit more about himself.

"In October 2006 I graduate in physics at the University of Milan, with a thesis on non-equilibrium statistical physics. Thesis title: "Critical behaviour and dynamical effects in a quasi-unidimensionale driven lattice gas".

After a post-graduate fellowship of three months (March-May 2007) at the International School for Advanced Studies (SISSA) of Trieste, I was a visiting student at the Universita' degli Studi di Milano. In both the cases I keep on doing research on non-equilibrium statistical physics.

In the January 2008 I started my Ph.D. at the Universita' of Modena e Reggio Emilia, under the supervision of dott. Stefano Zapperi. My research is about the modelisation of the electromigration, both with theoretical and numerical methods and about the physics of the fractures, especially on brittle porous media."



edited by

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