

Press Release – June 2010



## TER@TEC Forum 2010

June 15 & 16, Ecole Polytechnique (91) France

[www.teratec.eu](http://www.teratec.eu)

*The meeting of the international experts of the High Performance Numerical Design and Simulation*

### **TER@TEC Forum 2010 dedicated on the very fast development of HPC usage in many various domains**

By gathering the best international experts in high performance numerical design and simulation, the TER@TEC Forum is the major event in France and in Europe in this domain. It confirms the importance of this sector in the development of industrial competitiveness and innovation capacity.

**The plenary sessions** will illustrate the increasing impact of HPC in many areas of industry and research, and its role in major scientific and technological challenges, with the participation of industrial users, of international leading suppliers, and of personalities from the political, economical and academic worlds.

**An exhibition** of around fifty booths will present innovations coming from the major players, manufacturers and software editors, integrators and distributors, services providers, etc.

**The workshops** will address HPC major research and engineering topics and will be an opportunity to discover some major collaborative projects under development between industry and research.

#### ► **Tuesday June 15, Plenary sessions,**

**09h00 Welcome**

*By Gerard ROUCAIROL, President of TER@TEC*

**09h10 Christine LAGARDE, French Minister of Economy, Industry and Employment (video transmission)**

**09h20 The HPC territorial implications**

*By Thierry MANDON, Deputy Chairman of the Essonne Regional Council*

**09h40 High Performance Computing for competitiveness in Science and Industry**

*Zoran STANČIČ, Deputy Director General for Information Society and Medias, European Commission*

**10h00 Networking - Coffee Break – Exhibition – Grand Hall**

**10h45 US HPC Programs**

*By Michael STRAYER, Associate Director, DOE Office of Advanced Scientific Computing Research*

**11h20 Panorama and evolution of HPC usages**

*By Earl JOSEPH, IDC Program Vice President for HPC*

**11h55 Sponsors presentation**

*With CAPS Enterprise, SGI, NVidia, INTEL, DDN and C&S,*

**12h25 Networking - Lunch Buffet – Exhibition – Grand Hall**

**14h15 HPC simulation for aeronautical design**

*Bruno STOUFFLET, Directeur de la Prospective, DASSAULT AVIATION*

**14h40 Architecture and software evolution**

*By Pierre FIORINI, CEO HPC PROJECT*

**15h05 HPC and sustainable city**

*By Hervé CHARRUE, Director of R&D, CSTB*

**15h30 Networking - Coffee Break – Exhibition – Grand Hall**

**16h15 The role of Simulation in the Innovation policy of an Automotive Tier 1**

*By Guillaume DEVAUCHELLE, Director of R&D, VALEO*

**16h35 HPC and Cloud Computing for the audiovisual production and communication industries**

*By Jean-Charles HOURCADE, ACADEMIE DES TECHNOLOGIES*

**17h00 BULL Joseph FOURIER Prize in association with GENCI**

*With the participation of Philippe VANNIER, CEO BULL and Catherine RIVIERE, CEO GENCI*

**17h30 Cocktail**

➡ **Tuesday, June 15, Exhibition**

An exhibition of around fifty booths will present innovations coming from the major players, manufacturers and software editors, integrators and distributors, services providers, etc.

ALLINEA SOFTWARE - ALTAIR ENGINEERING - AGENCE NATIONALE DE LA RECHERCHE - ANSYS France - BULL - CAPS ENTREPRISE - CD ADAPCO - CEA - CENAERO - CLUSTERSVISION France - COLLAVIZ (Projet) - COMMUNAUTE COMMUNES ARPAJONNAIS - CONSEIL GENERAL DE L'ESSONNE - CS COMMUNICATION ET SYSTEMES - DDN DATADIRECT NETWORKS - DISTENE - ENGINSOFT - ESI GROUP - FRAUNHOFER ITWM - FRAUNHOFER SCAI - GENCI - HEWLETT PACKARD - HPC PROJECT - INRIA - INTEL France - MICROSOFT FRANCE - NAG - NICE SOFTWARE - NUMTECH - NVIDIA - OPEN GPU (Projet) - OPEN HPC (Projet) - PANASAS - SCILAB - SERVIWARE - SGI - SODEARIF / BOUYGUES / BREZILLON SYSTEM@TIC - TER@TEC

[For more](#)

➡ **Wednesday, June 16, Workshops**

● **Workshops 1 & 2 : Systems Engineering**

*With the participation of DASSAULT AVIATION, TER@TEC, MIN. DEFENSE/DGA, AFIS, CNRS, DASSAULT SYSTEMES, EADS IW, C&S, UNIVERS. FEDERAL DO RIO DE JANEIRO, RENAULT, CENAERO, INRIA and CSTB*

The workshops will address systems engineering and will be introduced by a joint presentation by Ter@tec and System@tic of research & development strategies concerning this key discipline, from early design phases to maintenance and decommissioning operations. A global overview of the systems engineering discipline will be presented by the French Association for Systems Engineering. Major topics will be addressed during the workshop: Systems Multidisciplinary Optimisation - Systems Optimisation and Automotive Applications - Civil Engineering Systems Applications and Challenges – Model Based Engineering Systems and Models Driven Architecture - Examples of innovative systems developments.

➡ [For more](#)

● **Workshop 3 : The New Paradigms of Scientific Visualization**

*With the participation of OXALYA, WEB3D Consortium, DFKI, KITWARE, CEA, BARCO, VISENSO, BRGM, UNIVERSITY OF CARDIFF, DISTENE, CSDL, FRAUNHOFER IGD, ECOLE CENTRALE DE PARIS and DASSAULT AVIATION*

The workshop will present existing technologies and future high performance solutions. Major challenges still need to be taken up. They will be addressed during half a day of exchanges, combining market solutions, experience sharing and collaborative R&D projects presentations.

➡ [For more](#)

#### ■ **Workshop 4 : Image Production**

*With the participation of CAP DIGITAL, C&S, THALES, THE BAKERY, DARKWORKS et MIKROS IMAGE*

This workshop will allow participants to qualify the needs of the various Image production markets, to foresee the main technical evolutions and their adaptation to the different fields.

➔ [For more](#)

#### ■ **Workshop 5 : Systemes architecture**

*With the participation of CEA, CRAY, CLUSTERSTOR, SGI, HEWLETT PACKARD and KALRAY*

We have just entered the Petascale era, and the period to come will see a tremendous increase of the number of very large HPC systems. On our way towards the next, but still far horizon of Exascale, it is also clear that a sustainable consolidation of the current or near-existing technologies will more and more have to tackle the architecture and system issues as a whole. Computing, communication, storage and data management elements will have to be integrated tightly in a balanced, energy-efficient and robust way to ensure the viability and acceptability of high end supercomputers. This workshop will address those global design and integration issues, through the enlightening visions of major players and leaders in the field of very high performance computing and data management systems.

➔ [For more](#)

#### ■ **Workshop 6 : Parallel applications, the challenges of manycore architectures**

*With the participation of CAPS ENTREPRISE, INRIA, BARCELONA SUPERCOMPUTING CENTER, ALLINEA and MICROSOFT*

Manycore processors are here. Energy saving tends to favor heterogeneous architectures that combine general-purpose cores with streaming co-processors such as GPUs. To exploit the tremendous computing power of these systems, software refactoring that extracts massive parallelism is unavoidable. There is no "silver bullet" to transparently solve this issue.

➔ [For more](#)

#### ■ **Scilab users day, ScilabTec'10**

*With the participation of HPC PROJECT, NVIDIA, MIT, NATIONAL INSTRUMENTS, INRIA, ECOLE NATIONALE DES MINES DE SAINT-ETIENNE and PSA PEUGEOT CITROËN*

ScilabTec is a unique opportunity to deal with a wide range of subjects, share experiences and feedbacks, and discuss with the members of the Scilab Consortium research and development team, with thematic and technical sessions in the morning and plenary presentations in the afternoon.

➔ [For more](#)

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### **About TER@TEC - EUROPEAN COMPETENCE CENTER IN SIMULATION AND HIGH PERFORMANCE COMPUTING**

*Ter@tec is a non-profit association of more than sixty companies and research labs, created at the initiative of CEA to establish a European center of expertise in numerical simulation, high performance, with the aim of uniting all of the industrial and academic, suppliers and users, providing access to the most powerful systems, promote and increase the attractiveness of the area by promoting economic development.*

- ➔ *Contribute to HPC development in France and in Europe*
- ➔ *Federate users and providers, Industry and Academy*
- ➔ *Facilitate the launch of collaborative R&D projects*
- ➔ *Help getting access to the most powerful supercomputers*
- ➔ *Provide appropriate trainings and seminars to develop competences*
- ➔ *With the Ter@tec Campus, promote HPC attractiveness to foster economic development*

### **TER@TEC, an ecosystem for competitiveness and innovation in France and in Europe**

*Ter@tec is a major player in Europe in the field of intensive calculation and simulation. It is located in Essonne in the vicinity of Arpajon. It constitutes the core of a technopole referred to as a R&D area and is a member belonging to the world competitiveness pole known as "System@tic Paris Region".*