HPC Users Symposium
at 14th IEEE International Conference on
High Performance Computing (HiPC)
http://www.hipc.org
Goa, India

December 20, 2007

SYMPOSIUM PROGRAM HIGHLIGHTS

Mini Symposium on High Performance Computing Technologies, Applications and Experience will be held in conjunction with the 14th IEEE International Conference on High Performance Computing (HiPC 2007).

The mini symposium will bring together providers and users of HPC to provide a forum for presenting the state-of-the-art in HPC platforms and technologies, for discussing best practices and for exchanging experiences. HPC applications and the experiences of application developers will be the focus of this mini symposium. For further details, contact the Symposium Co-Chair TK Ramesh at tirumale.k.ramesh@boeing.com

Keynote at the HPC Users Symposium

"How High Performance Computing is Transforming Scientific Research"
Dr. Ralph Roskies
Scientific Director, Pittsburgh Supercomputing Center, USA

Abstract

Not only does HPC change the kinds of problems we can attack; it also changes the way in which we carry out scientific research. Drawing on examples from the Pittsburgh Supercomputing Center and the TeraGrid, the speaker will illustrate the impact that high performance computing is having on the conduct of Science.

Symposium Technical Program

The symposium technical program will consist of a keynote presentation, 3 invited papers and 5 contributed papers with representative contributions from industry, academia and government organizations addressing the use and applications of high performance computing and its impact on current HPC technologies. Please see for details on the next page.

Symposium ORGANIZATION

SYMPOSIUM CO-CHAIRS*
TK Ramesh, The Boeing Company, USA
Santosh Srinivasan, Talentain Technologies, India
Venkat Ramana, Hinditron-CRAY, India

SYMPOSIUM COMMITTEE
* Includes
Ramamurthy Badrinath, HP, India
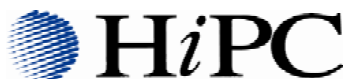Haresh Bhatt, SAC-ISRO, India

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SYMPOSIUM HIGHLIGHTS
(CONTINUED)
Technical Program

MORNING SESSION (1 0 A M - NOON)

10.00 AM-10.05 AM	**Opening Remarks**
10.05 AM-10.45 AM	**Keynote Presentation**

How High Performance Computing is Transforming Scientific Research
Dr. Ralph Roskies*, Scientific Director, Pittsburgh Supercomputing Center, USA

10.45 AM-11.10 AM *Transforming Corporate Resources in to Scientific Computing Resources- A case study*
Kalyan Chadalavada, Jigar Halani, Talentain Technologies, India (INVITED PAPER)

11.10 AM-11.35 AM *Designing a Cluster Solution based on the Application Requirement*
Mausmi Kotecha, Toby Sebastian, Shivaraj Nidoni, Dell India R&D Centre, India

11.35 AM-Noon *Advanced DSP based high performance computing for ISRO'S synthetic aperture RADARS*
Nilesh M. Desai, B. Saravana Kumar, Ritesh Kumar Sharma, Tapan Misra, V.R.Gujraty and S.S.Rana, Space Applications Centre, ISRO, India

Noon **Morning Session Closing Remarks**

AFTERNOON SESSION (1 P M - 3 P M)

1.00 PM-1.25 PM *SPEC MPI2007 - a new benchmark suite for measuring MPI application performance*
Kalyan Kumaran, Argonne National Lab, USA (INVITED PAPER)

1.25 PM-1.50 PM *Solving the I/O Bottleneck Using a Parallel File System: An Animation/CGI Case Study*
Sanjay Lalwani, Dell India R&D Center, India, Sudhir Srinivasan, Ph.D., IBRIX Inc., India

1.50 PM-2.15 PM *DMSAR Processing in Garuda Grid*
**V.Manavala Ramanujam, Tapan Misra, Space Applications Centre(SAC), ISRO, India
Santhosh Anumandla, R. Manavalan, CDAC, Bangalore, India**

2.15 PM-2.40 PM **Dynamic performance and capacity provisioning to heterogeneous compute environment
Rajendra Shetty, Quantum, India (INVITED PAPER)**

2.40 PM-3.05 PM *Grid-Enabling Message-Passing Ensemble Kalman Filter Approach using GridWay Metascheduler*
Ravi Vadapalli and Ping Luo, High Performance Computing Center, Texas Tech University, Lubbock, TX, USA and Supercomputing Facility, Texas A&M University, College Station, TX, USA