



## **ISC'09 In-Depth Sessions to Focus on Applications in Climate and Aeronautics, Cloud Computing and HPC Research**

**HAMBURG, Germany—The 2009 International Supercomputing Conference (ISC'09), Europe's premier meeting for high performance computing, will feature four in-depth technical sessions looking at some of the biggest challenges in science, industry and technology. ISC'09 will be held June 23-26 in Hamburg.**

The four-day high performance computing conference and trade show at the Congress Center Hamburg provides a unique international platform to gain insights, network and do business, all under one roof. With over 1,500 attendees and more than 120 exhibitors from over 45 countries expected to attend, ISC'09 is shaping up to be the most extensive and dynamic ever. The in-depth sessions with focus on applications in climate research and aeronautics, cloud computing and HPC research.

ISC, which marks its 24<sup>th</sup> anniversary in 2009, has a well-established reputation for presenting well-founded, precise and up-to-date information in an environment that encourages informal conversations and sharing of ideas. ISC is also the largest high performance computing exhibition in Europe. All conference proceedings are conducted in English.

In addition to world-renowned keynote speakers, ISC'09 will feature four in-depth sessions examining some of the most exciting – and challenging – areas in high performance computing today. Here is an overview of each of the sessions:

[HPC & Cloud Computing – Synergy or Competition?](#) Cloud computing is among the hottest topics in HPC and the Cloud Computing Session is one of the hottest at ISC'09. The session, on Wednesday, June 24, will be held in two parts and is chaired by Prof. Dieter Kranzlmüller from Ludwig-Maximilian-Universität München and Dr. Martin Antony Walker, an independent consultant. The first part will contain presentations from two major IT vendors, HP and IBM, followed by perspectives from the Jülich Supercomputing Center and Microsoft. The second part will start with presentations from three IT vendors driving cloud computing today, Google, Amazon, and Yahoo!, followed by a roundtable panel discussion to field questions from the audience.

**Climate Modeling & HPC: Challenges in a Changing World:** Climate research, especially simulations for different emission scenarios, looms as a high priority scientific and political topic in the coming decades and will be discussed on June 23. The first part, chaired by Reinhard Budich of Germany's Max Planck Institute for Meteorology, will set the scene by looking at current solutions, with presentations from climate research centers in Germany, the United States and Great Britain. The second part, chaired by Prof. Wolfgang Hiller of the Alfred Wegener Institute for Polar & Marine Research in Germany, will look at the future challenges and possible solutions for the climate computing problem, with perspectives from experts from the U.S. and Great Britain. A panel discussion of the question "If Global Change



is the Grand Challenge Application, "Do We Need a World Climate Computing Center?" will conclude the session.

**Supercomputing Challenges for Research in Aeronautics:** The aeronautics industry is entering a new era with new aircraft like the Airbus A380 and the upcoming Boeing 787 and Airbus A350, all aimed at meeting increased demand for efficient, environmentally friendly air travel. This offers a significant opportunity for the aerospace industry, but also major challenges need to be solved with regard to environmental effects, safety, security and affordability. This June 23 session, chaired by Prof. Dr. Isabelle Terrasse of the EADS Innovation Works in France, will feature speakers from EADS, Airbus, Boeing, DLR and Turbomeca. The first half will focus on the current technologies and capabilities used in aeronautical research and industrial applications both for numerical simulations and data analysis. The second part of the session will mostly focus on the challenges that need to be solved in the next 10-20 years in the aerospace industry.

The Scientific Afternoon in-depth session on June 23 will showcase the top submissions from the ISC'09 Call for Papers. Of the 54 submissions, the top 24 were selected based on their novelty of research, fundamental insights and potential for long-term contribution to HPC. All 24 papers will be published by the scientific publishing house Springer Science and Business Media and will be distributed at the conference. To accommodate all the papers, the Scientific Sessions on Tuesday, June 23 had to be split up into three parallel sessions covering these areas:

- Applications
- System architecture
- Large-Scale System Organization
- General Interest Areas

An overview of the ISC'09 conference program can be found at <http://www.supercomp.de/isc09/Program/Overview>.

Advance registration is now open for ISC'09 and in addition to reduced rates, a number of one-day options for both the program and exhibition are being offered for the first time. For complete details on registration categories and rates, go to: <http://www.supercomp.de/isc09/Registration-Travel/Attendance-Fees>.

ISC'09 will be held for the first time in Hamburg, Germany's largest port and a European center for aviation, technology and media. The conference will convene in the Congress Center Hamburg, easily accessible to international flights and rail. For more information about the conference, please see <http://www.supercomp.de/isc09/>.