



## International Supercomputing Conference to Host First Panel Discussion of Breaking the Petaflop/s Barrier

**DRESDEN, Germany—With the June 9 announcement that the IBM supercomputer “RoadRunner” is the first system to reach the 1 petaflop/s level (performing more than 1,000,000,000,000 floating point operations per second), the high performance computing (HPC) community is entering a realm of unprecedented computing power.**

And while the news about RoadRunner has caused quite a stir in the community, the implications of this new reality have not yet set in. At the International Supercomputing Conference (ISC) to be held June 17–20 in Dresden, a special panel discussion on “RoadRunner — the First Petaflop/s System in the World and Its Impact on Supercomputing” has been added to the conference program. The panel will include HPC experts from around the world (more information on the special session at: <http://www.isco8.org/rr>, [http://www.supercomp.de/isco8/content/e2/e4629/index\\_eng.html](http://www.supercomp.de/isco8/content/e2/e4629/index_eng.html))

The petaflop/s performance achievement will also feature prominently in a session at the conference unveiling the latest edition of the TOP500 list of the world's most powerful supercomputers.

“For me, breaking the petaflop/s barrier is the equivalent of a runner finally running the 100-meter race in 9.5 seconds — a level of performance everyone hopes for but proves elusive to actually achieve,” said Prof. Hans Meuer, general chair of ISC and founder of the TOP500 list. “This will be the third time at ISC that we will have a presentation about the almost magical surpassing of a thousand-fold increase in HPC performance. Twenty-two years ago, in 1986, the legendary Cray 2 passed the 1 gigaflop/s level, and in June of that year we held the first ISC. Eleven years later, when the Intel ASCI Red system landed atop the ninth TOP500 list presented at the conference, this was the first time a system reached the teraflop/s level. And now RoadRunner has cracked the next magical barrier and will be number one on the 31<sup>st</sup> edition of the TOP500 list.”

RoadRunner, located at the U.S. Department of Energy's Los Alamos National Laboratory, is a hybrid supercomputer built by IBM, using 6,912 dual-core Opteron processors from Advanced Micro Devices (AMD) and 12,960 of IBM's Cell eDP accelerators. At the end of May, the system posted a peak performance of 1.026



petaflop/s running the Linpack benchmark. This test consisted of solving linear equations involving more than 2 million equations and an equal number of unknowns.

ISC will acknowledge this historic milestone with the special panel discussion from 6-7 p.m. Wednesday, June 18, in Dresden's International Congress Center. Participating in the session will be two leaders of the drive to build RoadRunner, Dr. Andrew White from Los Alamos and Dr. Don Grice of IBM. Joining them will be some of the most respected HPC experts from North America, Asia and Europe. They include Dr. Horst Simon of Lawrence Berkeley National Laboratory (LBNL), Dr. Satoshi Matsuoka of the Tokyo Institute of Technology, and Dr. Michael Resch of the High Performance Computing Center Stuttgart. Last but not least, two authors of the TOP500 list — Dr. Jack Dongarra from the University of Tennessee and Dr. Erich Strohmaier of LBNL — will add their insights. Prof. Meuer will moderate the discussion.

The conference, Europe's premier HPC event, will be held June 17–20 at the International Congress Center in Dresden, one of Germany's "Cities of Science." The conference, which is conducted in English, includes three days of technical sessions, pre-conference sessions aimed at the automotive industry and scientific researchers, poster and birds-of-a-feather sessions, and after-hours networking opportunities.

ISC, which marks its 23<sup>rd</sup> anniversary in 2008, 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, and 90 of the leading hardware, software and services vendors are expected to fill the exhibition hall in Dresden during ISC'o8. To learn more about the conference program, please visit the ISC'o8 website at <http://www.isco8.org/>.

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