SC11 to honor HPC innovators with IEEE Computer Society and ACM awards

SEATTLE, Oct. 18, 2011—Three computer science innovators who have helped to advance the development of high performance computing architectures, software and interactive tools will be honored by the Association for Computing Machinery (ACM) and the IEEE Computer Society when SC11 convenes at the Washington State Convention Center in November.

Now in its 24th year, SC11, the premier international conference of high performance computing, networking, storage and analysis, will take place Nov. 12 – 18 and is expected to bring more than 10,000 professionals from academia, industry and government to Seattle.

Each year, conference sponsors ACM and IEEE Computer Society recognize outstanding achievements in high performance computing and related fields by awarding the IEEE Computer Society Seymour Cray Award, the IEEE Computer Society Sidney Fernbach Award, and the ACM/IEEE Computer Society Ken Kennedy Award.

Charles Seitz, 2011 IEEE Computer Society Seymour Cray Computer Engineering Award

Charles Seitz, one of the founders of Myricom, Inc., and president and CEO of Myricom until last year, is the winner of the 2011 Seymour Cray Computer Engineering Award. Known as an architect and designer of a wide range of computing and communications systems, Seitz will be recognized for "innovations in high performance message passing architectures and networks."

He developed the digital system project laboratory course while still a graduate student at the Massachusetts Institute of Technology and helped design the highest performance graphics engine of its time while with Evans & Sutherland Computer Corp. Seitz joined the computer science faculty at Caltech, where he and his students developed the first multicomputer, the Cosmic Cube, and developed the programming and packet switching techniques for the second generation of multicomputers.

His patented message passing techniques are employed by large computing systems such as the Intel Paragon, ASCI Red, and the Cray T3D/E. In 1994, he led the team that founded Myricom, Inc., the makers of Myrinet high performance interconnects and switches.

The Cray award honors innovative contributions to high performance computing systems that best exemplify Seymour Cray's creative spirit. The award includes a crystal memento, certificate and $10,000 honorarium.

Cleve Moler, 2011 IEEE Computer Society Sidney Fernbach Award

Cleve Moler, a mathematician and computational scientist specializing in numerical analysis, is the recipient of the 2011 Sidney Fernbach award in recognition of "fundamental contributions to linear algebra, mathematical software, and enabling tools for computational science."

Moler is the chairman and chief mathematician of MathWorks, the company he founded with Jack Little in 1984 to commercialize MATLAB, a high-level numerical computing environment. For nearly two decades Moler was a professor of mathematics and computer science, at the University of Michigan, Stanford University and the University of New Mexico. He was computer science chair at UNM when he developed several packages of mathematical software for computational science and engineering. In 1985, he joined Intel to co-found its supercomputing division and produce the first commercial parallel computer line, the Intel iPSC, whose development led to the Paragon and to ASCI Red.

Moler co-authored the LINPACK and EISPACK scientific subroutine libraries as well as five textbooks on numerical analysis and computational science. He is a member of the National Academy of Engineering and a past president of the Society of Industrial and Applied Mathematics.

The Fernbach award was established in 1992 in memory of high performance computing pioneer Sidney Fernbach and includes a certificate and $2,000 honorarium.

Susan Graham, 2011 ACM/IEEE Computer Society Ken Kennedy Award

Susan L. Graham, a computer science professor at the University of California, Berkeley, is the 2011 Ken Kennedy Award winner for her contributions to computer programming tools that have significantly advanced software development.

Graham's research covers human-computing interaction, programming systems and high performance computing. Her work has led to the development of interactive tools that enhance programmer productivity as well as new implementation methods for programming language that improve software performance.

As a participant in the Berkeley Unix project, Graham and her students built the Berkeley Pascal system and the widely used program profiling tool *gprof*. Her most recent projects include Harmonia, a language-based framework for interactive software development, and Titanium, a Java-based parallel programming language, compiler and runtime system that supports high performance scientific computing on large-scale multiprocessors.

The Kennedy Award was established in 2009 to recognize substantial contributions to programmability and productivity in computing and significant community service and mentoring activities. The award was named for Ken Kennedy, founder of Rice University's computer science program, and includes a $5,000 honorarium.

All three awards will be presented at the keynote address at SC11 on Tuesday, Nov. 15.

For a full list of technical program content, see the SC11 interactive schedule.

To register for SC11, visit the conference registration page.

About SC11

SC11, sponsored by the ACM (Association for Computing Machinery) and the IEEE Computer Society, offers a world-class technical program, a comprehensive Communities Program, and an Exhibit Hall that together showcase the latest advances in high performance computing, networking, storage and analysis that are advancing scientific discovery, research, education and commerce. This premier international conference brings together experts from around the world along with people new to the community to share knowledge and information, to form new partnerships and collaborations, and to empower the attendees to enhance their productivity. For more information on SC11, please visit: http://sc11.supercomputing.org/.

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