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## NEWS RELEASE

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### **William Gropp Recognized for Major Contributions to High Performance Computing**

*University of Illinois at Urbana-Champaign Professor to Receive ACM/IEEE-CS Kennedy Award*

**NEW YORK, OCTOBER 6, 2016** – The Association for Computing Machinery (ACM) and IEEE Computer Society have named William D. Gropp, a Professor of Computer Science at the University of Illinois at Urbana-Champaign, as the recipient of the 2016 [ACM/IEEE Computer Society Ken Kennedy Award](#) for highly influential contributions to the programmability of high performance parallel and distributed computers. The award will be presented at [SC 16: International Conference for High Performance Computing, Networking, Storage and Analysis](#), beginning November 13 in Salt Lake City, Utah.

Gropp was one of the leaders in the development of the Message Passing Interface (MPI) standard. MPI has become the de facto standard for programming distributed-memory computers in scientific applications, and has enabled a wide range of scientists and engineers to use the enormous performance potential of highly parallel computer systems for over two decades. He was a key author in the development of MPI-1, MPI-2, and MPI-3. As part of the standardization process, Gropp also designed and developed MPICH, the first functional implementation of MPI. This freely available software remains one of the most widely used implementations of MPI, with nearly 2,000 downloads per month.

Along with collaborators David Keyes and Xiao-Chuan Cai, Gropp developed and analyzed key scalable parallel algorithms for adaptive mesh refinement and domain decomposition methods, which are now widely used in parallel applications. This work led to the development of a numerical library, the Portable, Extensible Toolkit for Scientific Computation (PETSc), which Gropp developed in collaboration with Barry Smith. PETSc has been used in a variety of applications, including nano-simulations, biology, fusion, geosciences, environmental modeling, fluid dynamics and software engineering, among others.

In bestowing the Ken Kennedy Award, ACM and IEEE also cited Gropp's outstanding service to the field. In 2011, Gropp helped launch the [ACM Special Interest Group on High Performance Computing \(SIGHPC\)](#), the first international group devoted to the needs of students, faculty and practitioners in high performance computing. He also served as the editor of *CONNECT*, the newsletter for SIGHPC, as chair of the Gordon Bell Prize Committee, and in various capacities for numerous conference committees.

Gropp holds the Thomas M. Siebel Chair of Computer Science at the University of Illinois at Urbana-Champaign. He is also the Acting Director and Chief Scientist of the National Center for Supercomputing Applications. He has authored more than 187 technical publications, including the book *Using MPI*, which is in its third edition and has sold over 18,000 copies. Gropp received the 2014 SIAM/ACM Prize in Computational Science and Engineering, along with the PETSc Core Development Team (Satish Balay, Jed Brown, Matthew Knepley, Lois Curfman McInnes, Barry Smith and Hong Zhang). He was elected an ACM Fellow, IEEE Fellow, and SIAM Fellow, and is a member of the US National Academy of Engineering.

ACM and the IEEE Computer Society co-sponsor the Kennedy Award, which was established in 2009 to recognize substantial contributions to programmability and productivity in computing and significant community service or mentoring contributions. It was named for the late Ken Kennedy, founder of Rice University's computer science program and a world expert on high performance computing. The Kennedy Award carries a US \$5,000 honorarium endowed by the SC Conference Steering Committee.

### **About ACM**

ACM, the Association for Computing Machinery [www.acm.org](http://www.acm.org), is the world's largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

### **About SC16**

SC16 <http://sc16.supercomputing.org/> sponsored by ACM and IEEE-CS offers a complete technical education program and exhibition to showcase the many ways high performance computing, networking, storage and analysis lead to advances in scientific discovery, research, education and commerce. This premier international conference includes a globally attended technical program, workshops, tutorials, a world class exhibit area, demonstrations and opportunities for hands-on learning.