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Jesús Labarta Recognized with ACM-IEEE CS Ken Kennedy Award

Barcelona Supercomputer Center Leader Made Major Contributions to Programming Models and Performance Analysis Tools

NEW YORK, NY, October 17, 2017 – The Association for Computing Machinery (ACM) and IEEE Computer Society (IEEE CS) have named Jesús Labarta of the Barcelona Supercomputing Center (BSC) and Universitat Politècnica de Catalunya (UPC) as the recipient of the 2017 [ACM-IEEE CS Ken Kennedy Award](#). Labarta is recognized for his seminal contributions to programming models and performance analysis tools for high performance computing. The award will be presented at [SC 17: The International Conference for High Performance Computing, Networking, Storage and Analysis](#), November 12-17, in Denver, Colorado.

Throughout his career, Labarta has developed tools for scientists and engineers working in parallel programming. In the programming models area, he made fundamental contributions to the concept of asynchronous task-based models and intelligent runtime systems. With Labarta's approach, by using pragma directives that specify the region of code that constitutes tasks and the directionality of the data used by them, the programmer has a unified mechanism to allow intelligent runtime systems to detect and exploit concurrency as well as to manage locality. These ideas have been developed by Labarta's team on the OmpSs model and Nanos runtime. His team's work has also enhanced the interoperability between OmpSs (later Open multi-processing (MP)) and message passing interface (MPI).

In the performance tools area, Labarta's team develops and distributes Open Source Barcelona Supercomputer Center (BSC) tools that are employed throughout the field. These BSC tools are designed to analyze an application's behavior and identify issues that may impact performance. Paraver, the most widely used BSC tool, is a trace-based performance analyzer that processes and extracts information. Other tools like Dimemas or the Performance Analytics modules developed by Labarta's team help squeeze relevant insight and perform predictive analyses from the raw performance data captured by the instrumentation packages.

Labarta is Director of the Computer Science Department at the Barcelona Supercomputing Center and a Professor of Computer Architecture at the Universitat Politècnica de Catalunya. From 1996 to 2004 he

served as the Director of the European Center of Parallelism of Barcelona (CEPBA). He has published more than 250 articles in conferences and journals in areas including high performance architectures and systems software. He has been involved in research and cooperation with many leading companies on HPC-related topics. Currently Labarta is the leader of the Performance Optimization and Productivity EU Center of Excellence where more than 100 users (both academic and SMEs) from a very wide range of application sectors receive performance assessments and suggestions for code refactoring efforts.

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, 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 IEEE Computer Society

IEEE Computer Society, www.computer.org, is one of the world's leading computing membership organizations and a trusted information and career-development source for a global workforce of technology leaders including: professors, researchers, software engineers, IT professionals, employers, and students. IEEE Computer Society provides high-quality, state-of-the-art information on an on-demand basis. The Computer Society provides a wide range of forums for top minds to come together, including technical conferences, publications, a comprehensive digital library, unique training webinars, and professional training. IEEE is the world's largest professional association for advancement of technology and the Computer Society is the largest society within IEEE.

About SC17

SC17, the International Conference for High Performance Computing, sc17.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.

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