ADVCOMP 2012

Forward

The Sixth International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP 2012) held on September 23-28, 2012 in Barcelona, Spain, was a multi-track event covering a large spectrum of topics related to advanced engineering computing and applications in sciences.

With the advent of high performance computing environments, virtualization, distributed and parallel computing, as well as the increasing memory, storage and computational power, processing particularly complex scientific applications and voluminous data is more affordable. With the current computing software, hardware and distributed platforms effective use of advanced computing techniques is more achievable.

The goal of ADVCOMP 2012 was to bring together researchers from the academia and practitioners from the industry in order to address fundamentals of advanced scientific computing and specific mechanisms and algorithms for particular sciences. The conference provided a forum where researchers were able to present recent research results and new research problems and directions related to them. The conference sought contributions presenting novel research in all aspects of new scientific methods for computing and hybrid methods for computing optimization, as well as advanced algorithms and computational procedures, software and hardware solutions dealing with specific domains of science.

We take here the opportunity to warmly thank all the members of the ADVCOMP 2012 technical program committee as well as the numerous reviewers. The creation of such a broad and high quality conference program would not have been possible without their involvement. We also kindly thank all the authors that dedicated much of their time and efforts to contribute to ADVCOMP 2012. We truly believe that, thanks to all these efforts, the final conference program consisted of top quality contributions.

This event could also not have been a reality without the support of many individuals, organizations and sponsors. We also gratefully thank the members of the ADVCOMP 2012 organizing committee for their help in handling the logistics and for their work that is making this professional meeting a success. We gratefully appreciate to the technical program committee co-chairs that contributed to identify the appropriate groups to submit contributions.

We hope the ADVCOMP 2012 was a successful international forum for the exchange of ideas and results between academia and industry and to promote further progress in advanced scientific computing.

We hope Barcelona provided a pleasant environment during the conference and everyone saved some time for exploring this beautiful city.

ADVCOMP 2012 Chairs:

ADVCOMP Advisory Chairs
Chih-Cheng Hung, Southern Polytechnic State University, USA
Juha Röning, Oulu University, Finland
Sigeru Omatu, Osaka Institute of Technology, Japan
Erich Schweighofer, University of Vienna, Austria

ADVCOMP Research/Industry Chair
Jorge Ejarque Artigas, Barcelona Supercomputing Center (BSC-CNS), Spain
Helmut Reiser, Leibniz Supercomputing Centre (LRZ)-Garching, Germany