

## Preface

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The use and development of High Performance Computing in Latin America is steadily growing. The new challenges coming from the use of the computing capabilities of clusters, grids, and distributed systems for HPC, help to promote the research and innovation in this area.

Building on the great success of the previous four editions, in 2012 the Latin American Symposium on High Performance Computing grew to include three major events: the V HPCLatAm2012 International Symposium (Buenos Aires, from July 23-24), the High Performance Computing School (ECAR 2012, Buenos Aires, from July 25 to August 3), and the HPC Day (La Plata, August 30) within the 41st Argentine Conference of Informatics (41 JAIIO).

The HPCLatAM2012 International Symposium provided a regional forum fostering the growth of the HPC community in Latin America through the exchange and dissemination of new ideas, techniques, and research in High Performance Computing. The symposium featured invited talks from academy and industry, short- and full-paper sessions presenting both mature work and new ideas in research and industrial applications. The submitted articles presented new valuable contributions in the areas of Parallel Algorithms and Architectures, High Performance Applications, Tools and Environments for High Performance System Engineering, Graphics Processing Units in High Performance Computing, Distributed and Grid Computing, and Parallelism and Data Sharing on Multi-core Architectures, among others.

This Special Issue of CLEI Electronic Journal presents the top contributions presented in V HPCLATAM 2012, which we think are valuable contributions to the development of high performance computing in Latin America.

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