Workshop on
Java for Parallel and Distributed Computing

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This series of workshops was initially created during the IPPS/SPDP conference that was held in Orlando, Florida, in April 1998. At that time Java was beginning to play a larger and more important role in the domain of parallel and distributed computing as was reflected by the significant number of papers that year that referred to this technology. It was thus decided to set up a forum for the community attending IPPS/SPDP – that merged as IPDPS for the Y2K Cancun edition – to discuss the topic. This workshop continues to provide an opportunity to share experience and views of current trends and activities in the domain.

The 2002 version of this workshop follows those that were held in San Juan, Puerto Rico in 1999, in Cancun, Mexico in 2000, and in San Francisco, USA in 2001. Its focus remains on Java for parallel and distributed computing, supporting environments, and related technologies, but has been broadened by adding new topics such as Internet-based parallel and distributed computing. The aim is to more fully recognize the impact of some of the subjects discussed by the papers and broaden the attendance seen at previous editions of the workshop.

The papers selected for presentation this year cover various topics: efficiency, communication, mobility, distribution, supporting tools, etc. This quite large selection reflects the major trends in the domain. Although the number of submissions, hence the number of accepted papers, has increased this year, the organizers again decided to reserve space for invited sessions and for open discussions in addition to the regular papers.

The quality and variety of the topics covered by the submitted papers reflect the vitality of this research area. The work of the referees and the program committee have led to the selection of a collection of papers reflecting current research efforts in the field. The organizers believe that the papers presented here advance the field significantly and that other researchers in the area will want to become familiar with their contents.

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Workshop Organization

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Workshop Papers

1. A Comparative Study of Parallel and Distributed Java Projects for Heterogeneous Systems
   J. Al-Jaroodi, N. Haji and D. Hassan

2. Efficient Thread-Parallel Java Programs from Scientific Computing
   H. Baar, B. Helder, and T. H. Abr

3. A New Estimation Method for Distributed Java Activity
   A. Bach, P. Bisk, and D. Bissel

4. A Scalable Multicast Communication Service in Java
   J. Gleason and M. Ha

5. Translating Java to C Without Inserting Classifiers
   Y. Aha

6. Methodology for Java Distributed and Parallel Programming Distributed Collections
   V. Recond Bissel

7. Mobile ActiveObjects for Highly Dynamic Distributed Computing
   G. E. Eino, E. F. Dholi, H. Wuang, and E. Woen

8. Implementing the Message Passing Interface Standard in Java
   S. Mar and C. Mfres

9. Debugging Distributed Computing Applications
   R. Iman, and L. Suteram

10. Experiences with Targeting the Java HotSpot Machine
    T. Smit, S. E. Sinivas, P. Birch, and R. Br