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OpenMP Shared Memory Parallel Programming

International Workshops, IWOMP 2005 and IWOMP 2006
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Reims, France, June 12-15, 2006
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Preface

OpenMP is an application programming interface (API) that is widely accepted as a standard for high-level shared-memory parallel programming. It is a portable, scalable programming model that provides a simple and flexible interface for developing shared-memory parallel applications in Fortran, C, and C++. Since its introduction in 1997, OpenMP has gained support from the majority of high-performance compiler and hardware vendors. Under the direction of the OpenMP Architecture Review Board (ARB), the OpenMP standard is being further improved. Active research in OpenMP compilers, runtime systems, tools, and environments continues to drive its evolution. To provide a forum for the dissemination and exchange of information about and experiences with OpenMP, the community of OpenMP researchers and developers in academia and industry is organized under cOMPunity (www.compunity.org).

Workshops on OpenMP have taken place at a variety of venues around the world since 1999: the European Workshop on OpenMP (EWOMP), the North American Workshop on OpenMP Applications and Tools (WOMPAT), and the Asian Workshop on OpenMP Experiences and Implementation (WOMPEI) were each held annually and attracted an audience from both academia and industry. The intended purpose of the new International Workshop on OpenMP (IWOMP) was to consolidate these three OpenMP workshops into a single, yearly international conference. The first IWOMP meeting was held during June 1–4, 2005, in Eugene, Oregon, USA. The second meeting took place during June 12–15, in Reims, France. Each event drew over 60 participants from research and industry throughout the world. In keeping with the objectives and format of the prior workshops, IWOMP includes technical papers and panels, tutorials, and a hands-on laboratory (OMPlab), where OpenMP users and developers worked together to test compilers, tune applications, and experiment with OpenMP tools. The first of these workshops was organized under the auspices of cOMPunity. In the meantime, a Steering Committee has been established to oversee the organization of these events and to guide the further development of the workshop series.

The first two IWOMP meetings were successful in every respect. To a large extent, this success was due to the generous support received from the IWOMP sponsors. Intel Corporation, Sun Microsystems, Hewlett Packard, STMicroelectronics, PathScale, Microsoft, the University and City of Reims, the Region Champagne-Ardenne, and the ARB all gave financial support to these conferences. Fujitsu Systems Europe LTD, Microway, the Technical University of Denmark, the Centre Informatique National de l´Enseignement Supérieur, Reims Universtiy, RWTH Aachen University, and Technische Universität Dresden provided access to system platforms for the OMPlab. The level of support given demonstrates a strong interest in the success of OpenMP in both industry and research.

The cOMPunity webpage (see http://www.compunity.org) provides access to the talks given at the meetings and to photos of the activities. The IWOMP webpage (see http://www.iwomp.org) provides information on the latest event. This book contains the proceedings of the first two IWOMP workshops. In total, 35 papers were accepted for the technical program sections.

It was a pleasure to help ignite the IWOMP workshop series. We look forward to a bright future for both OpenMP and this workshop.

February 2008

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