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Parallel Algorithms for Irregularly Structured Problems

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Preface

The Workshop on Parallel Algorithms for Irregularly Structured Problems – Irregular '95 – is the second in the series, started in Geneva in 1994, that addresses issues related to deriving efficient parallel solutions to irregularly structured problems. This series of meetings is intended to foster cooperation between theoreticians and practitioners of the field. The former study models and design and analysis of parallel algorithms while the latter still face inefficient performance of parallel solutions to concrete problems in science and industry, mainly because of irregular structures.

The scientific program of Irregular '95 consists of five sessions divided in four main streams, namely, Programming Methods & Compiling Techniques, Mapping & Scheduling, Applications, and Optimization. Each of the three days of the workshop presents, in addition, an invited lecturer, expert on that day's theme. The contributed papers published in these proceedings were selected by the Program Committee on the basis of referee reports. Each paper appearing in these proceedings was reviewed by at least three referees who judged the papers for originality, quality and consistency with the themes of the conference. Comments from the referees were sent to authors to aid in the preparation of final manuscripts. Due to the high level of the submissions, eight short contributions were accepted in addition to the twenty regular ones. We wish to thank all of the authors who responded to the call for papers, our invited speakers, all of the referees, and the members of the Program Committee:

A. Apostolico, Padova & Purdue	H. Burkhart, Basel
M. Cosnard, Lyon	A. Gerasoulis, Rutgers
T. Hagerup, Saarbrucken	V. Kumar, Minnesota
B. Monien, Paderborn	P. Panagiotopoulos, Thessaloniki
S. Ranka, Syracuse	J.-L. Roch, Grenoble
J. Saltz, Maryland	J. Szwarcfiter, Rio de Janeiro
P. Thanisch, Edinburgh	M. Valero, Barcelona

We are grateful to the European Association for Theoretical Computer Science, and to the Special Interest Group "Irregular" of the International Federation of Information Processing (IFIP) for their sponsorship, and to the PRC PRS of the French CNRS, the CNRS, the Conseil Général du Rhône, the University of Geneva, and the Laboratoire de l'Informatique du Parallélisme for financial support. We would like to thank particularly the members of the Organizing Committee consisting of P. Berthomé, T. Duboux, V. Roger and S. Ubeda; and all of those who helped Irregular '95 to be a successful event. Finally, we are grateful to the Laboratoire de l'Informatique du Parallélisme and the Ecole Normale Supérieure de Lyon for providing secretarial support and facilities for the Conference.

Préface

Le colloque **IRREGULAR '95** sur l'Algorithmique Parallèle pour Problèmes Irréguliers est le second d'une série, débutée à Genève en 1994, qui s'intéresse à la production de solutions parallèles efficaces pour des problèmes à structure irrégulière. Cette série de rencontres a pour but d'augmenter la collaboration entre utilisateurs et théoriciens du domaine.

Le programme scientifique d'**Irregular'95** comporte cinq sessions réparties dans quatre grands thèmes : Méthodes de programmation et techniques de compilation; Placement et ordonnancement; Applications; et Optimisation. De plus, chaque jour du colloque débute par l'exposé d'un conférencier invité, expert dans le thème du jour. Les contributions publiées dans ces actes ont été sélectionnées par le Comité de Programme au vu des conclusions des rapporteurs. Chaque article présent dans ces actes a été évalué par au moins trois rapporteurs qui ont jugé de l'originalité, de la qualité et de l'adéquation du texte avec les thèmes du colloque. Les commentaires des rapporteurs ont été transmis aux auteurs pour les aider dans la préparation des versions définitives. En raison du haut niveau des articles soumis, huit contributions courtes ont été retenues en complément des vingt articles principaux. Nous tenons à remercier tous les auteurs qui ont répondu à l'annonce du colloque, nos conférenciers invités, l'ensemble des rapporteurs ainsi que les membres du Comité de Programme qui était composé de :

A. Apostolico, Padova&Purdue	H. Burkhart, Basel
M. Cosnard, Lyon	A. Gerasoulis, Rutgers
T. Hagerup, Saarbrucken	V. Kumar, Minnesota
B. Monien, Paderborn	P. Panagiotopoulos, Thessaloniki
S. Ranka, Syracuse	J.-L. Roch, Grenoble
J. Saltz, Maryland	J. Szwarcfiter, Rio de Janeiro
P. Thanisch, Edinburgh	M. Valero, Barcelona

Nous sommes reconnaissants à l'EATCS (*European Association for Theoretical Computer Science*) et à l'IFIP (Special Interest Group Irregular of the International Federation of Information Processing) pour leurs soutiens, et au PRC PRS du CNRS, au CNRS lui-même, au Conseil Général du Rhône, à l'Université de Genève et au Laboratoire de l'Informatique du Parallelisme pour leurs apports financiers. Enfin, nous voulons particulièrement remercier les membres du comité d'organisation composé de P. Berthomé, T. Duboux, V. Roger et S. Ubeda ainsi que tous ceux qui ont permis à Irregular'95 d'être un succès, avec en particulier, le Laboratoire de l'Informatique du Parallelisme et l'Ecole Normale Supérieure de Lyon pour la mise à disposition des moyens logistiques nécessaires au colloque.

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