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Intelligent Data Engineering and Automated Learning – IDEAL 2005

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Preface

The ongoing success of the Intelligent Data Engineering and Automated Learning (IDEAL) conference series reflects the continuing need for intelligent approaches to understanding relationships in the massive data sets which confront the modern researcher.

From its origins in Hong Kong in 1998, this focus upon the nature of the data has been the unifying theme of the conference, allowing it to become a key forum for researchers to present novel approaches to data engineering and learning, and to provide a particularly valuable opportunity for cross-disciplinary exchange of ideas in emerging application areas. This breadth and continual evolution may be seen in this year's programme, with sessions devoted to data mining and knowledge engineering, bioinformatics, agent technologies and financial engineering, together with the traditional focus on learning algorithms and systems.

This volume in the Lecture Notes in Computer Science series contains accepted papers presented at IDEAL 2005, held in Brisbane, Australia, during July 6–8, 2005. The conference received 167 submissions from throughout the world, which were subsequently refereed by the Programme Committee and additional reviewers. The vast majority of submissions received three independent reviews, and for some borderline submissions an additional, fourth review was commissioned prior to the decision being made.

In the end, 76 papers were judged to be of sufficient quality for acceptance and inclusion in the proceedings, with a smaller set of these articles to be considered for inclusion in planned special issues of a number of major journals – continuing a practice from recent IDEAL conferences. At the time of writing, this arrangement had been confirmed with the International Journal of Neural Systems, and discussions were well advanced with two other publications.

Happily, IDEAL 2005 also enjoyed a fine list of keynote speakers, with talks by Adam Kowalczyk, Geoff McLachlan, and Mehran Sahami bringing an ideal mix of theoretical innovation and application focus.

We would like to thank the International Advisory Committee and the Steering Committee for their guidance and advice, and we would particularly like to acknowledge the work of our Programme Committee members and additional reviewers who performed admirably under tight deadline pressures. It has been a pleasure to work with a publisher such as Springer, and we thank them for their ongoing professionalism and attention to detail.

We were fortunate to receive support from two Australian research organizations for paper prizes (The Australian Research Council Centre for Complex Systems) and student travel grants (The Australian Research Council Network in Complex Open Systems). This support allowed us to recognize outstanding contributions to the programme, and to give opportunities to young researchers that they might not otherwise receive, and we are grateful to these sponsors.

Finally, we would like to acknowledge the efforts of our colleagues on the conference Organizing Committee, administrative support from the University of Queensland, and our respective institutions for allowing us the time to undertake this task. We trust that you will enjoy the papers in this volume.

May 2005

Marcus Gallagher
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Table of Contents

Data Mining and Knowledge Engineering

Learning Algorithms and Systems

Bioinformatics

Agents and Complex Systems

Financial Engineering