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Rokia Missaoui Jürg Schmid (Eds.)

Formal Concept Analysis

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Preface

This volume contains selected papers of ICFCA 2006, the 4th International Conference on Formal Concept Analysis. The ICFCA conference series aims to be the prime forum for the publication of advances in applied lattice and order theory and in particular scientific advances related to formal concept analysis.

Formal concept analysis is a field of applied mathematics with its mathematical root in order theory, in particular the theory of complete lattices. Researchers had long been aware of the fact that these fields have many potential applications. Formal concept analysis emerged in the 1980s from efforts to restructure lattice theory to promote better communication between lattice theorists and potential users of lattice theory. The key theme was the mathematical formalization of *concept* and *conceptual hierarchy*. Since then, the field has developed into a growing research area in its own right with a thriving theoretical community and an increasing number of applications in data and knowledge processing including data visualization, information retrieval, machine learning, data analysis and knowledge management.

ICFCA 2006 reflected both practical benefits and progress in the foundational theory of formal concept analysis. This volume contains four lecture notes from invited speakers and 17 regular papers, among them one position paper. All regular papers appearing in these proceedings were refereed by at least two, in most cases three independent reviewers. The final decision to accept the papers was arbitrated by the Program Chairs based on the referee reports.

We wish to thank the Program Committee and the Editorial Board as well as the additional referees for their involvement, which ensured the scientific quality of these proceedings. Our special thanks go to Léonard Kwuida, who on the behalf of the Program Chairs meticulously managed information flow and data organization of the submission and editing process. We also express our gratitude to Ganaël Jatteau for his valuable assistance in managing the electronic submission system.

The ICFCA 2006 conference was hosted by Technische Universität Dresden, Germany. The Conference Chair was Bernhard Ganter. The conference was funded by the German Research Foundation (Deutsche Forschungsgemeinschaft).

February 2006

Rokia Missaoui
Jürg Schmid

Organization

The International Conference on Formal Concept Analysis (ICFCA) is the annual conference and principal research forum in the theory and practice of formal concept analysis. The inaugural International Conference on Formal Concept Analysis was held at the Technische Universität Darmstadt, Germany, in 2003. Succeeding ICFCA conferences were held at the University of New South Wales in Sydney, Australia, 2004, at the Université d'Artois, Lens, France, 2005 and at the Institut für Algebra, Technische Universität Dresden, Germany, 2006.

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