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Chien-Chung Chan Jerzy W. Grzymala-Busse
Wojciech P. Ziarko (Eds.)

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Volume Editors

Chien-Chung Chan
The University of Akron
Department of Computer Science
Akron, OH 44325-4003, USA
E-mail: chan@uakron.edu

Jerzy W. Grzymala-Busse
The University of Kansas
Department of Electrical Engineering and Computer Science
Lawrence, KS 66045, USA
E-mail: jerzy@eecs.ku.edu

Wojciech P. Ziarko
University of Regina
Department of Computer Science
Regina, SK S4S 0A2, Canada
E-mail: ziarko@cs.uregina.ca

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Preface

The articles in this volume were selected for presentation at the Sixth International Conference on Rough Sets and Current Trends in Computing (RSCTC 2008), which took place on October 23–25 in Akron, Ohio, USA.

The conference is a premier event for researchers and industrial professionals interested in the theory and applications of rough sets and related methodologies. Since its introduction over 25 years ago by Zdzislaw Pawlak, the theory of rough sets has grown internationally and matured, leading to novel applications and theoretical works in areas such as data mining and knowledge discovery, machine learning, neural nets, granular and soft computing, Web intelligence, pattern recognition and control. The proceedings of the conferences in this series, as well as in Rough Sets and Knowledge Technology (RSKT), and the Rough Sets, Fuzzy Sets, Data Mining and Granular Computing (RSFDGrC) series report a variety of innovative applications of rough set theory and of its extensions. Since its inception, the mathematical rough set theory was closely connected to application fields of computer science and to other areas, such as medicine, which provided additional motivation for its further development and tested its real-life value. Consequently, rough set conferences emphasize the interactions and interconnections with related research areas, providing forums for exchanging ideas and mutual learning. The latter aspect is particularly important since the development of rough set-related applications usually requires a combination of often diverse expertise in rough sets and an application field. This conference was not different in that respect, as it includes a comprehensive collection of research subjects in the areas of rough set theory, rough set applications as well as many articles from the research and application fields which benefit from the results of rough set theory. To be more specific, major topics of the papers presented at RSCTC 2008 included theoretical aspects of rough set theory, rough set methodology enhanced by probability theory, fuzzy set theory, rough mereology, rule induction, rough set approaches to incomplete data, dominance-based rough set approaches, rough clustering, evolutionary algorithms, granular computing and applications of rough set theory to analysis of real-world data sets.

We would like to express our gratitude to Lotfi Zadeh, Lakhmi Jain and Janusz Kacprzyk for accepting our request to present keynote talks.

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October 2008

Chien-Chung Chan
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