

## **Fundamentals of Knowledge Technology**

### **Preface**

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This issue of the *Fundamenta Informaticae* presents some selected and extended papers originally scheduled for the Rough Sets and Knowledge Technology conference in Chengdu, China, May 17 - 19, 2008. These papers, related to Fundamentals of Knowledge Technology, cover an entire spectrum of theoretical and application-oriented trends of rough set theory. Specifically, starting from theoretical approaches, two papers (*Approximation Algebra and Framework* by D. Ciucci and *Pairwise Comparisons Based Non-Numerical Ranking* by R. Janicki) describe generalized approximation algebras and deriving weakly ordered non-numerical rankings, respectively. The next two papers (*Semi-supervised Rough Cost/Benefit Decisions* by P. Lingras et al. and *An Incremental Approach for Inducing Knowledge from Dynamic Information Systems* by D. Liu et al.) discuss financial cost/benefit decisions and so called interesting knowledge. Another pair of papers (*Dominance-Based Rough Sets Using Indexed Blocks as Granules* by C. Chan and G. Tzeng and *Learning Rule Ensembles for Ordinal Classification with Monotonicity Constraints* by K. Dembczynski et al.) cover dominance relations. Two papers (*A Two-Phase Model for Learning Rules from Incomplete Data* by H. Li et al. and *An Integration of Cloud Transform and Rough Set Theory to Induction of Decision Trees* by J. Song et al.) show how to mine incomplete data. The paper *An Extended Comparison of Six Approaches to Discretization-A Rough Set Approach* by P. Blajdo et al.) compares six approaches to discretization. Finally, the paper *Single 2D Image-based 3D Face Reconstruction and Its Application in Pose Estimation* by X. Gong et al. is related to face recognition.

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