Guest Editors' Preface - In Memory of Cecylia Rauszer

This Special Issue is devoted to the memory of Cecylia (Inka) Rauszer who passed away in May 1994. We shall remember her as a friend, a much appreciated teacher, and a contributor to the development of logic and computer science. Her scientific contributions cover the following areas:

- dependencies between information contained in a data base and logics which describe these dependencies,
- user logics for users with limited access to information about objects describable in a database, and
- logical aspects of distributed and communicating knowledge bases.

Inka obtained several important results on relational databases, non-monotonic logics and knowledge representation methods. Her publication list includes over 50 papers. In her approach to many problems she very often used appropriate methods of algebra. This was the methodology strongly advocated by her teacher, the late Professor Rasiowa, and confirmed once again to be mutually beneficial; it enriches logic with algebraic tools and extends the scope of algebra by introducing logic-motivated structures.

We miss Inka very much for she was not only a distinguished scientist but also a lady of great heart and compassion.

The following 6 articles have been dedicated to Inka by her colleagues all over the world.

In *Substitution Principles in Some Theories of Uncertainty*, Mihir K. Chakraborty and Ewa Orłowska consider the problem of distinguishing the concept of identity from equivalence. An exposition in several formal systems from first order logic, through re-writing systems, to in-discernibility- and covering-based theories, to many-valued logics and fuzzy logic is given.

Terry Gaasterland and Jorge Lobo present *Qualifying Answers According to User Needs and Preferences.* Logic programs are annotated with user preferences and needs. The user provides a lattice of domain-independent values that define preferences and needs, and a set of domain specific user constraints qualified with lattice values. After a transformation, query-answering procedures for deductive databases are used to obtain annotated answers.

The *Complexity of Recursive Normal Default Logic* article by V. Wiktor Marek, Anil Nerode Jeffrey B. and Remmel gives a tight bound for extensions of normal default theories. Complexity of other related modes of non-monotonic reasoning is also considered.

Rough Set approximation of languages authored by Georghe Paun, Lech Polkowski and Andrzej Skowron applies the technique of rough sets, viz. lower and upper bounds, to obtain from a partial knowledge of strings of a language, sequences of approximations converging to the language. In several cases, the approximations are proven to be regular languages.

Carolina Ruiz and Jack Minker study various semantics of disjunctive logic programs with default negations in *Combining Closed World Assumptions with Stable Negation.* They introduce a class of quasi-stratified programs and study their semantics.

The final contribution is by Krister Segerberg. In *Belief Revision Without Linearity* he addresses the problem of modeling a belief change by means of hyper-theories.

The editors wish to thank the reviewers who contributed to this issue.

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