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Automata, Logic, and Computability: J.UCS Special Issue Dedicated to Professor Sergiu Rudeanu Festschrift.

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The present special issue of *J.UCS* contains papers written in honour of Professor Sergiu Rudeanu, on the occasion of his 65th birthday (9 February 2000) by some of his former students, colleagues, collaborators and friends, spread throughout the world.

Professor Rudeanu's research activity (starting from the late fifties) in lattice theory, algebra of logics, universal and Boolean algebras, pseudo-Boolean programming (a subject he has initiated with P. L. Hammer), automata theory and graph theory is very well-known.

Professor Rudeanu published numerous research papers and authored or co-authored some important books. A simple enumeration of some titles of his books, from the first one, *Axioms of Lattices and Boolean Algebras* published in Romanian by the Romanian Academy Publishing House in 1963 to the pioneering *Pseudo-Boolean Methods for Bivalent Programming*, Springer-Verlag, 1966 and *Boolean Methods in Operations Research and Related Areas*, Springer-Verlag, 1968 (both co-authored with P. L. Hammer), from the classical *Boolean Functions and Equations*, North-Holland, 1974 and *Lukasiewicz-Moisil Algebras* (co-authored with V. Boicescu, A. Filipoiu, G. Georgescu), North-Holland, 1991 to the forthcoming Springer-Verlag book *Lattice Functions and Equations*, may give the reader a glimpse into a particularly creative and productive life dedicated to mathematics and theoretical computer science.

The present volume reflects not only Professor Rudeanu's scientific interests, but also some features of his mathematical *oeuvre*, specifically, the preference for an algebraic treatment, the emphasis on mathematical rigour and clear presentation, the appreciation of the intrinsic beauty of results.

This volume includes a large spectrum of results on algebra of logics (Lukasiewicz-Moisil algebras, Pavelka algebras, Wajsberg algebras, substructural logics), algebra of computer science (algebraic specifications, network algebra, ordered structures, applied category theory), Boolean algebras, new computing paradigms (π-calculus, molecular computing), automata theory, data mining, algorithmic information theory and graph theory.

Happy Birthday, Professor Rudeanu!

C. S. Calude and G. Ştefănescu
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