MIODRAG KAPETANOVIĆ

1. BIOGRAPHY

Born 1947 in Belgrade, Serbia. Finished primary and grammar school also in Belgrade and after that studied mathematics at the Faculty of Science and Mathematics (FSM), University of Belgrade. Graduated 1970 and in January 1971 got the position of a research assistant trainee in the Mathematical Institute, Belgrade. As a postgraduate student specialized in mathematical logic and wrote M. Sc. Thesis and later Ph. D. dissertation under the guidance of prof. dr S. B. Prešić and with considerable help from prof. dr A. Kron. Became a research assistant in 1974 and a research professor in 1997. Spent some time 1977–1979 at the Manchester University (first with grant from Serbia) doing recursion theory, and on two occasions attended summer schools in logic and computer science in Italy. Together with A. Krapež initiated the, so called, dual tableaux method for first order logic which was further developed in some papers and software implementations. He was an advisor for the Ph.D. thesis of Mirjana Isaković-Ilić in substructural logic.

2. PUBLISHED RESULTS

On some many valued sentential calculi (in Serbocroatian), M. Sc. Thesis, FSM, Beograd 1973

Semantic tableaux method (in Serbocroatian), Ph. D. dissertation, Mathematical Faculty, Beogrsd 1996

Papers

1 *On a class of sentential functions*, Publ. Inst.Math. NS **22**(**36**), 1977, 127-129
2 *On a many valued sentential calculus*, Publ. Inst.Math. NS **27**(**41**), 1980, 103-106
3 *A tableaux system in modal logic*, Publ. Inst.Math. NS **30**(**44**), 1981, 65-67
4 *Some simple decidability proofs*, Matem. Vesnik textbf35(1983), No1, 27-29
5 *Models of Arithmetic* (in Serbocroatian, with Ž. Mijajlović), article in the book *Brojevi* (Numbers), Zagreb 1985

6 *More on trees and finite satisfiability: the taming of terms* (with A. Krapež), Notre Dame J. of Formal Logic **28**, 1987, 392-394

7 *A proof procedure for the first order logic* (with A. Krapež), Publ. Inst.Math. NS **45**(**59**), 1989, 3-5

8 *On an agorithm for proving validity of predicate formulas* (with A. Krapež, in Serbocroatian) Računarstvo **1** (1991), 23-28

9 *PROVER-strategija za efikasnu raspodelu klauza po procesorima* (with A. Krapež and T.Davidović), Proceedings of YUINFO 95, Beograd 1996

10) *Initial models and Horn clause axiomatizibility*, Publ. Inst. Math. NS **65** (**79**), 1999, 17-19

11) *A tableau based prover for BCK logic* (with M. Isaković-Ilić), Proceedings of the *XIV Conference on Applied Mathematics*, Novi Sad 2001, 26-30

12) *Work of Slaviša Prešić in Artificial Intelligence*, u zborniku *A Tribute to S.B. Prešić*, Matematički institut SANU 2001, 15-19

13) *On two classical results in the first order logic*, Publ. Inst. Math. NS **76**(**90**), 2004, 21-24

14) *On theories with the general disjunction property*, Algebra Universalis **57** (2007.), 127-129

15) *An $L_{\omega_1\omega_1}$ axiomatization of the Linear Archimedean continua as Merely Relational Structures* (with M. Arsenijević), Proceedings of the *11th WSEAS International Conference in Applied Mathematics*, Dallas, Texas, USA, 2007, 180-185

16) *Analytic Tableaux and Interpolation*, Publ. Inst. Math. NS **82**(**96**), 2007, 93-97

17) *The Great Struggle Between Cantorians and Neo-Aristotelians: Much Ado About Nothing* (with M. Arsenijević), Grazer Philosophische Studien, **76** (2008)

18) *An $L_{\omega_1\omega_1}$ axiomatization of the Linear Archimedean Continua as Merely Relational Structures* (with M. Arsenijević), *WSEAS Transactions on Mathematics*, **7** , No. 2, 2008, 39-47

Abstracts and short communications

1) *Logical aspects of prover in Prolog* (in Serbocroatian), Logic and Computer Science Conference, Ohrid 1988

2) *A parallel theorem prover for the full first order logic* (with A. Krapež, Z. Ognjanović, T. Davidović, D. Uroević, Z. Ristović), 13th International Conference on Information Technology Interfaces, Cavtat 1991

3) *PROVER 91 - a parallel theorem prover* (extended abstract), International workshop: Theorem Proving with Analytic Tableaux and Related Methods, Lautenbach 1992

4) *Tableaux for S4.3* (in Serbocroatian), Apstrakti 9. kongresa matematiara Jugoslavije, Petrovac 1995

5) *Tableau resolution*, (with A.Krapež), Apstrakti 9. kongresa matematiara Jugoslavije, Petrovac 1995

6) *A connection of tableaux method and cut free Gentzen systems*, LIRA'95, Novi Sad 1995

7) *On homomorphism extensions in model tkeory*, Apstrakti 11. kongresa matematiara Jugoslavije, Petrovac 2005

Software

SMULLYAN - a predicate logic theorem prover, Mathematical Institute 1988
Next two implement results from [8].

PROVER 87 - a theorem prover for the pure predicate calculus (with A. Krapež, Z. Ognjanović, Ž. Radovanović), Mathematical institute 1987

PROVER 89 - a tableau based theorem prover (with A. Krapež, Z. Ognjanović, D. Uroević), Mathematical institute 1989)