

## CURRICULUM VITAE

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*Born* 8 August, 1963, in Belgrade, Yugoslavia

*Parents* father: Professor Jovan Petrić (1930-1997), mathematician  
mother: Dr Zora Petrić (1932-2012), mathematician

*Wife* Ana Petrić, mathematician

*Children* daughter: Saša Petrić (1992), pianist  
son: Ivan Petrić (1994), electrical engineer

*Citizenship* Yugoslav

*Education* primary school: Belgrade, 1970-1978  
secondary school: Belgrade High School of Mathematics, 1978-1982  
university: Belgrade, Faculty of Mathematics, 1983-1988  
graduate studies: Belgrade, Faculty of Mathematics, 1989-1993  
Ph.D. studies: Belgrade, faculty of Mathematics and McGill University  
Montreal 1993-1997

*Degrees* B.A., mathematics, Faculty of Mathematics, University of Belgrade,  
December 1988 (8.92 out of 10)  
M.A., mathematical logic, Faculty of Mathematics, University of Belgrade, June  
1993, supervisor: Professor Kosta Došen  
Ph.D., mathematical logic, Faculty of Mathematics, University of Belgrade, June  
1997, supervisor: Professor Kosta Došen

*Theses* M.A.: "Isomorphic Propositional Formulae in Categorical Proof Theory (in Serbo-  
Croatian)", 1993  
Ph.D.: "Equalities of Derivations in Categorical Proof Theory (in Serbo-  
Croatian)", 1997

- Jobs* Teaching assistant, Faculty of Mining and Geology, Belgrade, 1989-1997  
Teaching assistant, McGill University, Montreal, 1993  
Assistant Professor, Faculty of Mining and Geology, Belgrade, 1998-2000  
part-time Assistant Professor, Faculty of Philosophy, Belgrade, 1999-2000  
Assistant Professor, Mathematical Institute, Belgrade, 2000-2008  
Professor, Mathematical Institute, Belgrade, 2008-present  
Associate Professor, Faculty of Mathematics, Belgrade, 2013-2019  
Professor, Faculty of Mathematics, Belgrade, 2019
- Teaching* First and second course in mathematics, Numerical Analysis (Belgrade, RGF)  
Calculus (Montreal, McGill)  
Logic (Belgrade, Philosophy)  
Categorical Logic and Type Theory, Logic, Linear Algebra,  
Communications in Mathematics (Belgrade, Mathematics)  
Logic (Podgorica, PMF)
- Particular lectures*  
Mathematical Institute, Belgrade, 1991-present  
McGill University, Montreal, 1993  
Faculty of Mathematics, Belgrade, 2012
- Scholarship* TEMPUS, Amsterdam, 1992
- Grants* supported by Grant 0401A of the Science Fund of Serbia, 1991-1999  
supported by Grant 1630 of the Science Fund of Serbia, 2000-2005  
supported by Grants 144013 and 144029 of the Science Fund of Serbia, 2006-2010  
supported by Grant 174026 of the Science Fund of Serbia, 2011-
- Invited talks* 5<sup>th</sup> Panhellenic Logic Symposium, Athens, 2005  
Cross Perspectives on Proof Systems and their Significance, Paris, 2012  
Conference on Hypothetical Reasoning, Tübingen, 2014  
14<sup>th</sup> Serbian Mathematical Congress, Kragujevac, 2018.

## PUBLICATIONS

### *Papers*

Modal functional completeness (co-author: K. Došen), in *Proof Theory of Modal Logic*, H. Wansing ed., Kluwer Academic Publishers, Dordrecht (1996), pp. 167-211.

Isomorphic Objects in symmetric monoidal closed categories (co-author: K. Došen), *Mathematical Structures in Computer Science* vol. 7 (1997), pp. 639-662.

Cartesian isomorphisms are symmetric monoidal: A justification of linear logic (co-author: K. Došen), *The Journal of Symbolic Logic* vol. 64 (1999), pp. 227-242.

On permuting cut with contraction (co-authors: M. Borisavljević and K. Došen), *Mathematical Structures in Computer Science* vol. 10 (2000), pp. 99-136, (arXiv:math/9911065).

The maximality of the typed lambda calculus and of cartesian closed categories (co-author: K. Došen), *Publications de l' Institut Mathematique*, tome 68 (82) (2000), pp. 1-19, (arXiv:math/9911073).

The maximality of cartesian categories (co-author: K. Došen), *Mathematical Logic Quarterly*, vol. 47 (2001), pp. 137-144, (arXiv:math/9911059).

Cut elimination in a category-like sequent system, in: A. Krapež, (ed.) *A Tribute to S.B. Prešić* (2001), pp. 73-78, Mathematical Institute, Belgrade.

Пермутовање сечења и контракције (co-authors: M. Borisavljević and K. Došen), *10. Конгрес математичара Југославије*, Београд 2000, Резимеи, стр. 13.

The typed Bohm theorem (co-author: K. Došen), in: J.J. Levy et al. (eds.), *Proceedings of the Satellite Workshops of the 28<sup>th</sup> ICALP*, Electronic Notes in Theoretical Computer Science 50(2001), no 2, pp. 119-131 (<http://www.elsevier.nl/locate/entcs/volume50.html>)

Coherent bicartesian and sesquicartesian categories (co-author: K. Došen), in: R. Kahle et al. (eds.), *Proof Theory in Computer Science*, Lecture Notes in Computer Science 2183 (2001), pp. 78-92 (arXiv:math/0006091).

Bicartesian coherence (co-author: K. Došen), *Studia Logica* vol. 71 (2002), pp. 331-353, (arXiv:math/0006052).

Kauffman monoids (co-authors: M. Borisavljević and K. Došen), *Journal of Knot Theory and its Ramifications* vol. 11 (2002), pp. 127-143, (arXiv:math/0008187).

Coherence in substructural categories, *Studia Logica* vol. 70 (2002), pp. 271-296, (arXiv:math/0006061).

Generality of proofs and its Brauerian representation (co-author: K. Došen), *The Journal of Symbolic Logic* vol. 68 (2003), pp. 740-750, (arXiv:math/0211090).

Self-adjunctions and matrices (co-author: K. Došen), *Journal of Pure and Applied Algebra* 184 (2003), pp. 7-39, (arXiv:math/0111058).

G-dinaturality, *Annals of Pure and Applied Logic* 122 (2003), pp. 131-173, (arXiv:math/0012019).

A Brauerian representation of split preorders (co-author: K. Došen), *Mathematical Logic Quarterly* 49 (2003), pp. 579-586, (arXiv:math/0211277).

The geometry of self-adjunction (co-author: K. Došen), *Publications de l' Institut Mathematique*, 73 (87) (2003), pp. 1-29 (arXiv:math/GT.0111058)

Negation and Involutive Adjunction (co-author: K. Došen), *We Will Show Them*, Sergei N. Artëmov, Howard Barringer, Artur S. d'Avila Garcez, Luís C. Lamb, John Woods\_(eds.), Essays in Honour of Dov Gabbay on his 60<sup>th</sup> Birthday, vol. 1 (2005), pp. 577-585, College Publications, London, ( arXiv:math/0506302).

A new proof of the faithfulness of Brauer's representation of Temperley-Lieb algebras (co-authors: K. Došen and Ž. Kovijanić), *International Journal of Algebra and Computation* 16, 5 (2006), pp. 959-968 (arXiv:math/0204214).

Coherence of Proof-Net Categories (co-author: K. Došen), *Publications de l' Institut Mathematique*, tome 78 (92) (2005), pp. 1-33, (arXiv:math/0503301).

Coherence for Star-Autonomous Categories (co-author: K. Došen), *Annals of Pure and Applied Logic* 141 (2006), pp. 225-242, (arXiv:math/0503306).

Associativity as Commutativity (co-author: K. Došen), *The Journal of Symbolic Logic* 71, 1 (2006), pp. 217-226, (arXiv:math/0506600).

Symmetric self-adjunctions: A justification of Brauer's representation of Brauer's algebras (co-author: K. Došen), *Proceedings of CGRT 2005*, pp. 177-188, (arXiv:math/0512102).

Medial Commutativity (co-author: K. Došen), *Annals of Pure and Applied Logic* 146 (2007), pp. 237-255, (arXiv:math/0610934).

Coherence and Confluence (co-author: K. Došen), *Perspectives on Universal Logic*, Jean-Yves Béziau and Alexandre Costa-Leite (eds.), Polimetrica, Monza, Italy (2007), pp. 205-215, (arXiv:math/0506310).

Relevant Categories and Partial Functions (co-author: K. Došen) ), *Publications de l' Institut Mathematique*, tome 82 (96) (2007), pp. 17-23, (arXiv:math/0504133).

Equality of Proofs for Linear Equality (co-author: K. Došen), *Archive for Mathematical Logic*, 47 (2008), pp. 549-565 (arXiv:math/0601490).

Bicartesian Coherence Revisited (co-author: K. Došen), *Logic in Computer Science*, Zoran Ognjanović (ed.), Zbornik radova 12 (20), Matematički institut SANU (2009), pp. 5-34 (arXiv:0711.4961).

Coherence in Linear Predicate Logic (co-author: K. Došen), *Annals of Pure and Applied Logic*, 158 (2009), pp. 125-153 (arXiv:0709.1421).

Coherence for Monoidal Endofunctors (co-author: K. Došen), *Mathematical Structures in Computer Science*, 20 (2010), pp. 523-543 (arXiv:0907.2194).

Coherence for Monoidal Monads and Comonads (co-author: K. Došen), *Mathematical Structures in Computer Science*, 20 (2010), pp. 545-561 (arXiv:0907.2199).

Coherence for Modalities (co-author: K. Došen), *Journal of Pure and Applied Algebra*, 215 (2011), pp. 1606-1628 (arXiv:0809.2494).

Hypergraph Polytopes (co-author: K. Došen), *Topology and its Applications*, 158 (2011), pp. 1405–1444 (arXiv: 1010.5477).

Intermutation (co-author: K. Došen), *Applied Categorical Structures*, 20 (2012), pp. 43-95 (arXiv: math/0701325).

Isomorphic Formulae in Classical Propositional Logic (co-author: K. Došen), *Mathematical Logic Quarterly*, 58 (2012), pp. 5-17 (arXiv:0912.1271 ).

Shuffles and Concatenations in Constructing of Graphs (co-author: K. Došen), *Mathematical Structures in Computer Science*, 22, Special Issue 06 (2012), pp 904-930 (arXiv:1002.3577 ).

Symmetric Self-Adjunctions and Matrices (co-author: K. Došen), *Algebra Colloquium*, 19, No. spec01 (2012), pp. 1051-1082 (arXiv:math/0510039).

Ordinals in Frobenius Monads (co-author: K. Došen), *Journal of Pure and Applied Algebra*, 217 (2013), pp. 763-778 (arXiv:0809.2495).

Syntax for Split Preorders (co-author: K. Došen), *Annals of Pure and Applied Logic*, 164 (2013), pp. 443-481 (arXiv:0902.0742).

Graphs of Plural Cuts (co-author: K. Došen), *Theoretical Computer Science*, 484 (2013), pp. 41-55 (arXiv:1104.4064).

On Stretching the Interval Simplex-Permutohedron, *Journal of Algebraic Combinatorics*, 39 (2014), pp. 99-125 (arXiv:1106.3250).

Symmetric bimonoidal intermuting categories and  $\omega \times \omega$  reduced bar constructions (co-author: T. Trimble), *Applied Categorical Structures*, 22 (2014), pp. 467-499 (arXiv:0906.2954).

Classifying spaces of monoidal categories (in Serbo-Croatian, co-author: S.Lj. Čukić), *Treća Matematička Konferencija Republike Srpske, Zbornik radova I, Trebinje* (2014), pp. 23-29.

Segal's multisimplicial spaces, *Publications de l' Institut Mathématique*, tome 97 (111) (2015), pp. 11-21, (arXiv:1407.3914).

Weak Cat-Operads (co-author: K. Došen), *Logical Methods in Computer Science*, 11 (2015), pp. 1–23, (arXiv:1005.4633).

Monoids, Segal's condition and bisimplicial spaces, *Četvrta Matematička Konferencija Republike Srpske, Zbornik radova I, Trebinje* (2015), pp. 7-16 (arXiv: 1505.05010).

270 Minutes on Categorical Proof Theory, *Logic in Computer Science*, Silvia Ghilezan (ed.), Zbornik radova 18 (26), Matematički institut SANU (2015), pp. 7-35.

A Planarity Criterion for Graphs (co-author: K. Došen), *SIAM Journal on Discrete Mathematics*, 29(4) (2015), pp. 2160–2165 (arXiv:1203.0996).

Representing conjunctive deductions by disjunctive deductions, (co-author: K. Došen), *The Review of Symbolic Logic*, 10 (2017), pp. 145-157 (arXiv:1511.05462).

A note on semisymmetry (co-author: Aleksandar Krapež), *Quasigroups and Related Systems*, 25 (2017), pp. 269-278 (arXiv:1507.02149).

The  $n$ -fold reduced bar construction (co-author: S.Lj. Čukić), *Journal of Homotopy and Related Structures*, 13 (2018), pp. 503-543 ([arXiv:1309.6209](https://arxiv.org/abs/1309.6209)).

Spheres as Frobenius objects (co-authors: Dj. Bararalić and S. Telebaković), *Theory and Applications of Categories*, 33 (2018), pp. 691-726 (arXiv:1609.03979).

A simple permutoassociahedron (co-authors: Dj. Baralić and J. Ivanovic), *Discrete Mathematics*, 342 (2019), 111591 (arXiv:1708.02482).

A faithful 2TQFT (co-authors: S. Gajović, S. Telebaković Onić), *Homology, Homotopy and Applications*, 22 (2020), pp. 391-399 (arXiv:1711.06044).

Proofs and surfaces, (co-authors: Đ. Baralić, P-L. Curien, M. Milićević, J. Obradović, M. Zekić, R.T. Živaljević), *Annals of Pure and Applied Logic*, 171 (2020), 102845 (arXiv: 1907.02949).

Coherence for closed categories with biproducts, (co-author: M. Zekić), *Journal of Pure and Applied Algebra*, 225 (2021) 106533 (arXiv: 2001.09736).

*Manuscripts available at <http://arXiv.org>*

A calculus for  $S_3$ -diagrams of manifolds with boundary, (co-authors: B. Femić, V. Grujić, J. Obradović).

A diagrammatic calculus for categorical quantum protocols, (co-authors: D. Đorđević, M. Zekić).

A diagrammatic presentation of the category  $3\text{Cob}$ , (co-authors: J. Nikolić, M. Zekić).

From Heegaard diagrams to surgery, (co-authors: J. Nikolić).

*Books*

*Proof-Theoretical Coherence* (co-author: K. Došen), KCL Publications, London (2004)  
<http://www.mi.sanu.ac.rs/~kosta/coh.pdf>

*Proof-Net Categories* (co-author: K. Došen), Polimetrica, Monza, Italy (2007)  
<http://www.mi.sanu.ac.rs/~kosta/pn.pdf>

*Graphs for Juncture* (co-author: K. Došen), preprint, August 2012, viii+128 pp.  
<http://www.mi.sanu.ac.rs/~kosta/jun.pdf>