# Ivan Prokić

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### **Research Interests**

Formal Methods, Process Calculi, Type Theory, Session Types, Distributed Systems, Discrete Mathematics

# **Academic Positions**

•	Jul 2021 – present	Assistant Professor
		Chair for Mathematics
		Department of Fundamentals Disciplines
		Faculty of Technical Sciences, University of Novi Sad
•	Sep 2020 – July 2021	Teaching Assistant with PhD
		Chair for Mathematics
		Department of Fundamentals Disciplines
		Faculty of Technical Sciences, University of Novi Sad
-	Nov 2014 – Sep 2020	Teaching Assistant
	_	Chair for Mathematics
		Department of Fundamentals Disciplines
		Faculty of Technical Sciences, University of Novi Sad

# **Education**

•	Oct 2014 – Jan 2020	PhD in Applied Mathematics
		Faculty of Technical Sciences, University of Novi Sad
		PhD thesis: Formal modeling and analysis of resource usage and sharing
		in distributed software systems
		GPA: 10.00/10.00
		Advisors: Prof. Dr. Jovanka Pantović and Prof. Dr. Hugo Torres Vieira
•	Oct 2012 – Sep 2014	MSc in Mathematics
	-	Faculty of Sciences, University of Novi Sad
		GPA: 9.83/10.00
	Oct 2009 – Sep 2012	BSc in Mathematics
	•	Faculty of Sciences, University of Novi Sad
		GPA: 9.73/10.00

### **Publications**

#### Peer-Reviewed Journals

• Ghilezan S., Pantović, **Prokić I.**, Scalas A., Yoshida N.

Precise Subtyping for Asynchronous Multiparty Sessions

ACM Transaction on Computational Logic 2022

Simić M., Prokić I., Dedeić J., Sladić G., Milosavljević B.

Towards edge computing as a service: dynamic formation of the micro data-centers

IEEE Access 2021

• **Prokić I.**, Torres Vieira H.

The Cpi-calculus: A Model for Confidential Name Passing

Journal of Logical and Algebraic Methods in Programming 2021

Prokić I.

Characterization of Multiple-Valued Threshold Functions in the Vilenkin-Chrestenson Basis

Journal of Multiple-Valued Logic and Soft Computing 2020

• **Prokić I.**, Pantović J., Torres Vieira H.

A Calculus for Modeling Floating Authorizations

Journal of Logical and Algebraic Methods in Programming 2019

• **Prokić I.**, Pantović J.

Characterization of Generalized S-Threshold Functions by Nomura Parameters

Journal of Multiple Valued Logic and Soft Computing 2019

#### **Peer-Reviewed Conferences**

• Ghilezan S., Pantović, **Prokić I.**, Scalas A., Yoshida N.

Precise Subtyping for Asynchronous Multiparty Sessions

Proceedings ACM Programming Languages 5 POPL 2021

Prokić I.

The Cpi-calculus: A Model for Confidential Name Passing

12. Interaction and Concurrency Experience, Kopenhagen 2019

Prokić I.

Characterization of Quaternary Threshold Functions in the Vilenkin-Chrestenson Basis

48. International Symposium on Multiple-Valued Logic, Linz 2018

■ Pantović J., **Prokić I.**, Torres Vieira H.

A Calculus for Modeling Floating Authorizations

38. Formal Techniques for Distributed Objects, Components, and Systems, Madrid 2018

• **Prokić I.**, Pantović J.

Nomura Parameters for S-Threshold Functions

46. International Symposium on Multiple-Valued Logic, Novi Sad 2017

#### Books and Chapters (in Serbian)

• Nedović M., Arsić D., **Prokić I.**, Kiš M., Miščević I.

Zbirka zadataka iz algebre: prvi deo

Fakultet tehnićkih nauka 2021

Lukić T., Ilić V., **Prokić I.**, Đokić J.

Matematika 2: integralni račun i diferencijalne jednačine

Fakultet tehničkih nauka 2021

■ Nikolić A., **Prokić I.** 

Mirko Stojaković (1915-1985)

Život i delo srpskih naučnika, Biografije i bibliografije, SANU 2016

# **Research Projects**

European Union's Horizon Europe Research and Innovation Program
 TaRDIS: Trustworthy and Resilient Decentralised Intelligence for Edge Systems 2023-2025

- Science Fund of the Republic of Serbia, Serbian Science and Diaspora Collaboration Program
   <u>Algebraic and logical methods for explanaible artificial intelligence (ALADDIN)</u> 2020-2022
- European Union's program COST European Cooperation in Science and Technology
  EUTYPES The European research network on types for programming and verification 2015-2020
- European Union's program COST European Cooperation in Science and Technology Reversible computation - extending horizons of computing 2014-2018
- European Union's program COST European Cooperation in Science and Technology Behavioural Types for Reliable Large-Scale Software Systems 2012-2016
- Ministry of Education and Science of the Republic of Serbia Representations of logical structures and formal languages and their application in computing 2011-2018

### **Scholarships and Awards**

- Award Momčilo Momo Novković received from the Dean of the Faculty of Technical Sciences 2022 link
- Selected as one of the participants at 8th Heidelberg Laureate Forum 2021
- The ICE 2021 Outstanding PC Member Award ICE 2021
- Studentship from the Ministry of Youth and Sport and the Fund for Young Talents of the Republic of Serbia 2012 and 2014
- Award from University of Novi Sad for achieved outstanding results during the bachelor studies 2012

### **Teaching Experience**

#### PhD Studies

 Faculty of Technical Sciences, University of Novi Sad Program: Mathematics in Engineering Formal Models and Methods for Concurrent Systems, since 2022

#### **MSc Studies**

 Faculty of Technical Sciences, University of Novi Sad Program: Mathematics in Engineering Theory of Computation, since 2022

 Faculty of Technical Sciences, University of Novi Sad Program: Mathematics in Engineering Formal Models for Distributed Systems, since 2022

#### BCs Studies

 Faculty of Technical Sciences, University of Novi Sad Program: Mechatronics Mathematics 3, since 2021

Faculty of Technical Sciences, University of Novi Sad
 Teaching assistant in various mathematics courses, since 2014

#### Mentoring PhD Students

Faculty of Technical Sciences, University of Novi Sad

Program: Mathematics in Engineering Candidate: Dunja Jankov, since 2021

### **Invited Talks**

- At MIDA group, Uppsala University, Sweden, 7th November 2022
- At MRG group, Imperial College London (together with Miloš Simić), 7th October 2021

### **Professional Services**

- ICE 2023 16th Interaction and Concurrency Experience PC member
- ICE 2022 15th Interaction and Concurrency Experience PC member
- ICE 2021 14th Interaction and Concurrency Experience PC member
- ICE 2020 13th Interaction and Concurrency Experience PC member

# **Professional Membership**

- Institute of Electrical and Electronics Engineers (IEEE)
- Association for Computing Machinery (ACM)