

NIKITA SHEKUTKOVSKI

CURRICULIM VITAE

BASIC INFORMATION

- **Name:** Nikita Shekutkovski
- **Date of birth:** September 19, 1956
- **Citizenship:** Macedonian
- **Title of present position:** Full Professor (since 1998)
- **Highest degree earned:** Dr. Sci.
- **Major discipline:** Topology
- **Research interests:** Topology, specially intrinsic shape and applications in dynamical systems, continuity over coverings, chain connectedness, ends, proper homotopy
- **E-mail:** nikita@pmf.ukim.mk
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ACADEMIC DEGREES

- 1979, B.Sc in Mathematics, Institute of Mathematics at Faculty of Sciences, University of St. Cyril and Methodius , Skopje, Macedonia
- 1983, M.Sc in Mathematics, Institute of Mathematics at Faculty of Sciences, University of St. Cyril and Methodius , Skopje, Macedonia, Skopje, Macedonia (supervisor S. Mardesic)
- 1986, Dr. Sci. in Mathematics, University of Zagreb, Croatia, Ph.D. Thesis: "Coherent inverse systems and strong shape theory" (supervisor S. Mardesic)

ACADEMIC AND PROFESSIONAL POSITIONS

- (1980-1987): Teaching assistant, Institute of Mathematics at Faculty of Sciences, University of St. Cyril and Methodius , Skopje, Macedonia
- (1987-1993): Assistant Professor, Institute of Mathematics at Faculty of Sciences, University of St. Cyril and Methodius , Skopje, Macedonia
- (1993-1998): Associate Professor, Institute of Mathematics at Faculty of Sciences, University of St. Cyril and Methodius , Skopje, Macedonia
- (1998-): Full Professor, Institute of Mathematics at Faculty of Sciences, University of St. Cyril and Methodius , Skopje, Macedonia
- Head of the Institute of Mathematics at Faculty of Sciences, University of St. Cyril and Methodius , Skopje, from 1997 -1999 , from 2005 - 2007, and from 2009 - 2013.

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- Head of Ph.D. studies in Mathematical Sciences and Applications at University of St. Cyril and Methodius, from 2011-2015
- Member of the Senate of University of St. Cyril and Methodius, 2020 – 2023
- More than a decade Editor-in-chief of the journal Annuaire (Godishen zbornik) of Institute of Mathematics

Supervisor of seven (7) Ph. D. thesis and ten(10) master thesis. Two of them are Associate Professors at Universities in USA. The leading scientist in several scientific projects.

POSITIONS AT UNION OF MATHEMATICIANS OF MACEDONIA

- Several years Editor-in-chief of scientific journal Matematicki bilten
- Editor-in-chief of Proceedings of 4th Congress of Macedonian mathematicians, 2008
- Chair of Program Committee of 7th Congress of Macedonian mathematicians, 2023
- Chair of Commission for the Mathematical Olympiad for students of South-Eastern Europe (SEEMOUS 2023)
- Member of the MASEE Council (Mathematical Association of South Eastern Europe)

LECTURES AT CONFERENCES AND UNIVERSITIES

Participation at specialized scientific conferences on Topology in Italy, Spain, Japan, Poland, USA , Cech Republic, Croatia, Serbia, Bulgaria . Some of participations at conferences

- Invited lecture at Geometric Topology Conference in Poland, 2006, devoted to 100 years of the birth of K. Borsuk, the founder of Theory of shape, organized by Polish Academy of Sciences
- Spring Topology and Dynamics, University of Florida at Gainesville 2009
- 26th Summer Topology Conference , Kielce, Poland, 2010
- 11th Topological Simposium, Prague, Cech Republic, 2011
- Invited lecture at 13th Congress of Serbian mathematicians, Vrnjacka Banja, Serbia 2014
- Invited lecture at 6th Congress of Macedonian mathematicians, Struga 2016
- Invited lecture at International conference on Topology and its applications, Ohrid (ICTA 2016)
- Invited lecture at conference Topological methods in dynamics and related topics

He held lectures at well-known universities: Madrid,Oxford, Moscow, also Zagreb, Sofia,Jash, Split.

In 2016th. August and September, by invitation of Matej Bel University in Banska Bystrica, Slovakia, he held intensive course on postgraduate level entitled Theory of shape and applications in Dynamical systems.

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In 2018th, April, in the framework of CEEPUS (Central European Exchange Program for University Studies) at Topology seminar of Zagreb University, he held a series of lectures on postgraduate level.

In 2022nd, November, he had an invited lecture at Slovakian Academy of Sciences.

EDITED PROCEEDINGS

- First international conference on Topology and its applications, ICTA2000, Ohrid, September 2-9, Top. Appl. Vol. 140, Issue 1 (2004) (Guest editors: J.E. Keesling, Yu.T. Lisica, J.M.R. Sanjurjo, N. Shekutkovski)
<https://www.sciencedirect.com/journal/topology-and-its-applications/vol/140/issue/1>
- Second international conference on Topology and its applications, ICTA2004, Skopje, September 1-4, Top. Appl. Vol. 158, Issue 2 (2011) (Guest editors: J.E. Keesling, Yu.T. Lisica, J.M.R. Sanjurjo, N. Shekutkovski)
<https://www.sciencedirect.com/journal/topology-and-its-applications/vol/158/issue/2>
- IV Congress of the mathematicians of Republic of Macedonia, Struga, 19-22,10.2008 (N. Shekutkovski, editor-in-chief)

SCIENTIFIC PUBLICATIONS

- [1] N. Šekutkovski, Invariants of the pointed shape, Radovi Matematički Vol.1, 213 -219 (1985)
- [2] S. Mardešić, N. Šekutkovski, Coherent inverse systems and strong shape theory, Rad Jug. Akad.znan.umj., Knjiga 444, Mat. Znan., (1987) Svezak 8,
- [3] N. Šekutkovski, Category of coherent inverse systems, Glasnik Mat. 23(43) (1988), 373-396
- [4] N. Šekutkovski, Coherent category of inverse sequences is a subcategory of the category of coherent inverse systems, Macedonian Academy of Sciences, Contributions X (1989) 5-19
- [5] N. Šekutkovski, Coherent category Coh, Mat. Bilten 15 (XLI), 23-31 (1991)
- [6] N. Šekutkovski,, Coherent homotopy in inverse systems, Proc. Phil. Fak Nish, Serija Matematika 6:2 , Filomat 92 (1992), 391 - 410
- [7] N. Šekutkovski,, Relation between coherent categories, Proceedings of Mathematical conference, Prishtina , 113-118, (1994)
- [8] N. Shekutkovski, A criterion for uniform continuity using sequences, Scientific Review 19-20, (1996) 147-153

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- [9] N. Shekutkovski, Equivalence of coherent theories, *Topology Appl.* 75 (1997) 113-123
- [10] N. Shekutkovski, Maps between coherent and inverse systems, *Prilozi MANU*, (1997), 27 - 37
- [11] N. Shekutkovski , V. Vasilevska, Two approaches to Proper Shape Theory. *Mat. Bilten*, No. 21, (1997) 51-66.
- [12] N. Shekutkovski, The space of ends of a complement, *Mathematica Montisnigri*, Vol IX (1998) 93-97
- [13] N. Shekutkovski, A contribution to the theorem on level homotopy equivalences *Mat. bilten*, 24 (L), (2000), 111 - 120
- [14] N. Shekutkovski, From inverse to coherent systems, *Topology and its applications* 113 (2001), 293-307
- [15] N. Shekutkovski, V.Vasilevska, Equivalence of different definitions of space of ends, *God. Zb. Inst. Mat.* 39 (2002), 7-13
- [16] N. Shekutkovski , Shift and coherent shift in inverse systems, *Topology Appl.* Vol. 140, Issue 1 (2004), 111-130
- [17] N. Shekutkovski, T. A. Pachemska, Uniform Separation, *God. Zb. Mat. Inst.* (40) 2004, 5-10
- [18] N. Shekutkovski, B. Andonovik', Partitionings induced by a map, *God. Zb. Mat. Inst.* (40) 2004, 31-38
- [19] N. Shekutkovski, T. Atanasova-Pachemska, Uniform ends, *Math. Balkanica, New Series* Vol. 17, Fasc. 1-2, p.1-9, (2005);
- [20]. N. Shekutkovski N., T. Atanasova – Pachemska , Quasicomponents and separation by uniform functions in uniform spaces, *Proceedings of III Congress of Mathematicians of Macedonia*, Struga, 29. IX-2.X. 2005; (2007) pp.297-306,6
- [21]. N. Shekutkovski, Gj. Markoski, Space of uniform ends as inverse limit of uniform components of neighbourhoods, *Proceedings of III Congress of Mathematicians of Macedonia*, Struga, 29.09-2.10.2005, pp. 307-310
- [22] N. Shekutkovski, T. Atanasova-Pachemska, Category of partially proper maps and partially proper homotopy, *Proceedings of the International Scientific Conference FMNS-2005*, Blagoevgrad, 8-11.06.2005, Vol 1. p. 7-13, 2007
- [23] N. Shekutkovski N., B. Andonović, On structure of noncompact attractors, *Proceedings of International Scientific Conference FMNS-2005*, Blagoevgrad, 8-

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- [25]. Gj. Markoski, N. Shekutkovski - Functions preserving path connectedness and compactness, Proc. of the Inter. Math Conf. FMNS-2007, 6-10.06.2007, Blagoevgrad, Bulgaria, Vol.1, pages 92-95
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- [27]. N. Shekutkovski, B. Andonovik, Intrinsic definition of strong shape of strong paracompacta, Proceedings of IV Congress of the mathematicians of Republic of Macedonia, Struga, October 18-22, 2008 , (2010), 287 - 299
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- [30] N. Shekutkovski, Coherence – Homotopies of higher order, Chapter IV, Edited collection: Computational Mathematics: Theory, Methods and Applications, Nova Publishers, 2010
- [31] N. Shekutkovski, G. Markoski Ends and quasicomponents, Central European Journal of Mathematics, Volume 8, number 6 (December 2010) <http://link.springer.com/journal/11533/8/6/page/1>
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- [34] M. Shoptrajanov, N. Shekutkovski, Chain recurrence and topological transitivity in the plane, Proc. of the Inter. Conf. FMNS-2011, 8-11.06, Vol.1, pages 50-54
- [35] Z. Misajleski, N. Shekutkovski, Intrinsic shape based on epsilon continuity and on continuity up to a covering are equivalent, Proc. of the Inter. Conf.

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- [61] M. Shoprajanov, N. Shekutkovski , Shape-invariant Neighborhoods of Nonsaddle Sets, Regular and Chaotic Dynamics, (2020), Vol. 25, No. 6, pp. 581–596.
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- [63] N.Shekutkovski, Z.Misajleski, E.Durmishi, Product of chain connected sets in topological spaces, ROMAI J., v.17, no.2(2021), 73–80
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- [65] N. Shekutkovski, A. Buklla, Comparison of proper shape and proper shape over finite coverings, Filomat 37:29 (2023), 9991–9998
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PUBLISHED UNIVERSITY BOOKS

- 1) Mathematical Analysis 1, Prosvetno delo, Skopje, Second edition 2008 (First dition 1995)
- 2) Series and Analytic Functions, University of St.Cyril and Methodius, 2002
- 3) Topology, University of St.Cyril and Methodius, 2002
- 4) Mathematical Analysis, University of St.Cyril and Methodius, 2023,

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AWARDS

- Award "13th of November" of City of Skopje for scientific achievements in 2011
- Plaque received at 7th Congress of Macedonian mathematicians, Struga 2023
for the best-ranked scientific paper by Macedonian authors in the period between two
Congresses (2016 – 2022)