

# NIKITA SHEKUTKOVSKI

## CURRICULIM VITAE

### BASIC INFORMATION

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- **Name:** Nikita Shekutkovski
- **Date of birth:** September 19, 1956
- **Citizenship:** Macedonian
- **Title of present position:** Full Professor (since 1998)
- **Highest degree earned:** Ph.D.
- **Major discipline:** Topology
- **Research interests:** Topology, specially shape theory, coherent homotopy, proper homotopy, ends, and in the recent years intrinsic shape and applications in dynamical systems
- **E-mail:** nikita@pmf.ukim.mk
- **Office phone:** +389 2 3249 654

### ACADEMIC DEGREES

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- 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, Ph.D. in Mathematics, University of Zagreb, Croatia, Ph.D. Thesis: "Coherent inverse systems and strong shape theory" (supervisor S. Mardesic)

### ACADEMIC AND PROFESSIONAL POSITIONS

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- (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.
  - Head of Ph.D. studies in Mathematical Sciences and Applications at University of St. Cyril and Methodius, from 2011-2015
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**Supervisor** of six (6) Ph. D. thesis and nine (9) master thesis. Two of them are Associate Professors at Universities in USA.

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## PARTICIPATION AT CONFERENCES

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Participation at specialized scientific conferences on Topology in Italy, Spain, Japan, Poland, USA, Cech Republic, Croatia, Serbia. Invited talks at University of Oxford 2002, University Complutense, Madrid 2000 and at Borsuk Centennial Conference, Poland, organized by Polish Academy of Sciences. Recent participations at conferences:

- 2009, Spring Topology and Dynamics, University of Florida at Gainesville
- 2010, 25th Summer Topology Conference, Kielce, Poland,
- 2011, 11th Topological Symposium, Prague, Cech Republic
- 2013 conference "Dynamics, bifurcations and strange attractors", Nizhny Novgorod, Russia
- 2014 invited talk at 13. Congress of Serbian mathematicians, Vrnjacka Banja, Serbia
- 2015, 6<sup>th</sup> Visegrad Conference "Dynamical systems", Prague, Cech Republic

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## EDITED PROCEEDINGS

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- 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)
- 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)
- IV Congress of the mathematicians of Republic of Macedonia, Struga, 19-22, 10.2008 (N. Shekutkovski, editor-in-chief)

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## SCIENTIFIC PUBLICATIONS

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- [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)

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- [8] N. Shekutkovski, A criterion for uniform continuity using sequences, *Scientific Review* 19-20, (1996) 147-153
- [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. Balcanica*, 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, Prostorot od ramnomerni kraevi as inverzen limes od ramnomerni komponenti na okolini, *Proceedings of III Congress of Mathematicians of Macedonia*, Struga, 29.09-2.10.2005, pp. 307-310
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- [23] N. Shekutkovski N., B. Andonovik', On structure of noncompact attractors, *Proceedings of International Scientific Conference FMNS-2005*, Blagoevgrad, 8-11.06., Vol. 1
- [24]. N. Shekutkovski, Quasicomponents and functional separation, *Lecture notes of International Conference and Wokshops on Geometric Topology – Borsuk centennial conference*, 3-10.07.2005, <http://www.impan.gov.pl/BC.old/05Borsuk/notes.html>
- [25]. N. Shekutkovski, Gj. Markoski, B. Andonovik' - Functions preserving connectedness or path-connectedness, *Mat. Bilten*, 31 (LVII), 2007, 5-12
- [26]. Gj. Markoski, N. Shekutkovski - Functions preserving path connectedness and compactness, *Proc. of the Inter. Math Conf. FMNS-2007*, 6-10.06.2007, Blagoevgad, Bulgaria, Vol.1, pages 92-95
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- [32\*] 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>
- [33] B. Andonovik', N. Shekutkovski , Subcategory of metric compacta in the strong shape category Mat. Bilten, 34(LX), (2010), , 13-25
- [34\*] N. Shekutkovski, G. Markoski, Proper shape over finite coverings, Topology and its Applications 158 (2011), 2016-2021 <http://www.sciencedirect.com/science/journal/01668641/158/15>
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- [37\*] N. Shekutkovski, T.A. Pachemska, G. Markoski, Maps of quasicomponents induced by a shape morphism, Glasnik Matematički , Vol. 47, No. 2 (2012), 431-438 [http://web.math.pmf.unizg.hr/glasnik/vol\\_47/vol47no2.html](http://web.math.pmf.unizg.hr/glasnik/vol_47/vol47no2.html)
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- [39] N. Shekutkovski, M. Shoptrajanov, Intrinsic shape, attractors and Morse decomposition, God. Zb. Inst. Mat. 42 (2013), 47-58 [http://www.fmns.swu.bg/FMNS2013-Volume\\_1.pdf](http://www.fmns.swu.bg/FMNS2013-Volume_1.pdf)
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- [48] M. Shoptrajanov, N. Shekutkovski , Characterization of Topologically Transitive Attractors for Analytic Plane Flows, Filomat 29:1 (2015), 89–97
- [49] N. Shekutkovski, M. Shoptrajanov, Intrinsic shape of chain recurrent set, Topology and its applications (2015) (to appear)
- [50] M. Shoptrajanov, N. Shekutkovski , Fifth Mathematical Conference of the Republic Of Srpska, Trebinje, June 2015 (to appear)

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- [51] M. Shoptrajanov, Z. Misajleski, G. Markovski, N. Shekutkovski, Quasicomponents in Dynamical Systems, Proc. of the Inter. Conf. FMNS-2015, (2015) 51—56
- [52] N. Shekutkovski, A. Velkoska, One invariant of intrinsic shape, Filomat 29:10 (2015),
- [53] N. Shekutkovski, Intrinsic shape – The proximate approach, Filomat 29:10 (2015), 2199–2205

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### OTHER PUBLICATIONS

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#### **Author of three 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

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### AWARDS

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- Award "13th of November" of City of Skopje for scientific aghievements 1n 2011