

 <p>THE UNIVERSITY OF AUCKLAND NEW ZEALAND Te Whare Wānanga o Tāmaki Makaurau</p>	<p>University of Auckland Standard ACADEMIC CV</p>
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NAME: Arkadii Slinko

CURRENT POSITION: Associate Professor

DEPARTMENT: Mathematics

FACULTY: Science

EDUCATIONAL QUALIFICATIONS:

- Ph.D., Sobolev Institute of Mathematics, Novosibirsk, 1973
- Diploma of Novosibirsk State University, 1970

PREVIOUS APPOINTMENTS:

- 1995–2008: Senior Lecturer, The University of Auckland.
- 1992–1994: Lecturer, The University of Auckland.
- 1989–1992: Associate Professor, Lomonosov Moscow State University.
- 1979–1992: Senior Researcher, Institute for System Studies of Academy of Sciences USSR (Moscow)
- 1977–1979: Vice Chairman, Department of Mathematics, Novosibirsk State University.
- 1976–1979: Associate Professor, Department of Mathematics, Novosibirsk State University.
- 1974–1976: Assistant Professor, Department of Mathematics, Novosibirsk State University.

VISITING APPOINTMENTS:

- 2006 Visiting Researcher. The Centre for Interuniversity Research in Qualitative Economics (CIREQ) and Department of Economics of The University of Montreal, autumn semester.
- 2006 July, 2003 July: Visiting Researcher, Central Institute for Mathematics and Economics of Russian Academy of Sciences.
- 2003 June: Visiting Professor. CERMSEM. Université Paris 1 Panthéon-Sorbonne.
- 2001 Visiting Professor, Bilkent University (Ankara), autumn semester.
- 1999 Visiting Professor, Boğaziçi University (Istanbul), spring semester

SIGNIFICANT DISTINCTIONS / AWARDS

- 2007: Faculty of Science Distinguished Teaching Excellency Award.
- 2006-present: Member of The Editorial Board. Journal of Generalized Lie Theory and Applications.
- 2003-2005: Independent expert. The European Commission DG Research. The Sixth Framework Programme.
- 2000: Medal of the Latvian Mathematical Society for outstanding achievements in organising International Mathematics Olympiads.
- 1990: D.Sc., Sobolev Institute of Mathematics, Novosibirsk.

TEACHING (last five years): I developed a new course MATHS 328 "Algebra and Applications," which is now a core course at stage 3. In 2005 I served as the chairman of the review committee of courses in Algebra and Discrete Mathematics. In 2007 I received Faculty of Science Distinguished Teaching Excellency Award.

RESEARCH SPECIALITIES / CAREER:

Summary Statement: Since 2000 my main research interests lie in Social Choice Theory and Decision Theory. I am particularly interested in voting and rank aggregation mechanisms, their manipulability and their computational complexity. In previous years my research interests have also been in computability in algebraic structures, topological algebra and Lie and Jordan algebras.

Selected Distinguished Visitors:

- 2009: Prof. Ivan Shestakov, University of Sao Paolo, Brazil.
- 2006: Prof. Mamoru Kaneko, University of Tsukuba, Japan.
- 2006: Prof. Murali Agastya, University of Sydney, Australia.
- 2006 & 2004: Prof. Walter Bossert, University of Montreal, Canada.
- 2003: Prof. Herve Moulin, Rice University, USA.
- 1994: Prof. Efim Zelmanov, University of California at San Diego (Fields Medal 1994), USA.

Invited Lectures (last five years):

- 2008: The Tenth International Symposium on Artificial Intelligence and Mathematics Fort Lauderdale, Florida (USA), January 2-4.
- 2007: Dagstuhl Seminar 07431 'Computational Issues in Social Choice', Dagstuhl, Germany, 21-26 October.
- 2007: The 5th International Symposium on Imprecise Probability: Theories and Applications (ISIPTA 07), Prague, Czech Republic, 16-19 July.
- 2006: The VIII International Meeting of the Society for Social Choice and Welfare, Istanbul, July 13-17.
- 2006: 1st International Workshop on Computational Social Choice, Amsterdam, 6-8 December.
- 2005: 2nd Pan-Pacific Conference on Game Theory, Taipei, November 24-26.
- 2005: Logic, Game Theory and Social Choice 4, Caen (France), June 22-24.
- 2005: Fourth International Symposium on Imprecise Probabilities and Their Applications, Pittsburg (USA), 20-23 July.
- 2004: The VII International Meeting of the Society for Social Choice and Welfare, Osaka, 21-25 July.
- 2003: Colloquium lecture, Central Institute for Mathematics and Economics of Russian Academy of Sciences, July.
- 2003: Colloquium lecture, The University of Caen, Caen, France.
- 2003: Invited lecture "Rankings of Multisets and Their Applications in Economics" at L'cole des Hautes Etudes en Sciences Sociales (EHESS), Centre d'analyse et de mathematique sociales (CAMS), Paris, France, 16 June.

Selected Research Grants / Funding (last five years):

- 2008: \$8,504 NZD – Faculty of Business and Economics Research Development Fund Grant Reasoning and Decision-Making Under Uncertainty. (with Matthew Ryan).
- 2007: \$8,000 - Faculty of Science Research Development Fund.
- 2007: \$2500 AUD - Economic Design Network: collaboration visit grant.
- 2006: \$5,000 AUD – Economic Design Network: grant in support for a visit of Prof. M. Kaneko (University of Tsukuba, Japan).

- 2006: \$2,666 – ISAT Collaboration Fund of The Royal Society of New Zealand: grant for a visit of Prof. M. Agastya (Australian Research Fellow (ARC) and University of Sydney).
- 2006: \$4,800 (AUD) – Economic Design Network: grant in support for a visit of Prof. W. Bossert (University of Montreal).
- 2004: \$5,000 – New Zealand Institute of Mathematics: small grant in support for a visit of Prof. W. Bossert (University of Montreal).
- 2003: \$5,000 – New Zealand Institute of Mathematics: small grant in support for a visit of Prof. H. Moulin (Rice University).

Research Publications summary: 5 books, 70 refereed research papers, 136 publications in total. Below are my refereed research publications for the last four years.

1. Additive Representability of Finite Measurement Structures. In: "The Mathematics of Preference, Choice, and Order: Essays in Honor of Peter C. Fishburn". Eds. SJ Brams, WV Gehrlein and FS Roberts. Springer, 2009.
2. Approximability of Dodgson's rule (with John McCabe-Dansted and Geoffrey Pritchard), *Social Choice and Welfare*, 2008, 31(2): 311–330. Springer online (2007) DOI: 10.1007/s00355-007-0282-8.
3. Self-Selective Social Choice Functions (with S. Koray), *Social Choice and Welfare*, 2008, 31(1): 129–149. Springer online (2007) DOI: 10.1007/s00355-007-0276-6.
4. Non-dictatorial Social Choice Rules Are Safely Manipulable (with Shaun White). *Proceedings of the 2nd International Workshop on Computational Social Choice (COMSOC–2008)*. Eds. Ulle Endriss & Paul W. Goldberg. University of Liverpool, 2008. pp. 403–414.
5. Ranking Committees, Income Streams or Multisets (with M. Sertel), *Economic Theory*, 2007, 30(2): 265–287.
6. Comparative Probability Orders and the Flip Relation (with M. Conder and D. Searles), *Proceedings of The 5th International Symposium on Imprecise Probability: Theories and Applications (ISIPTA 07)*, Eds. G. de Cooman, J. Veinanova, M.Zaffalon. Prague, Czech Republic, 2007, 67–76.
7. On Complexity of Lobbying in Multiple Referenda (with Robin Christian, Mike Fellows and Fran Rosamond), *Review of Economic Design*, 2007, 11(3): 217–224.
8. Flippable Pairs and Subset Comparisons in Comparative Probability Orderings (with Robin Christian and Marston Conder), *Order*, 2007, 24(3): 193–213.
9. Orders on Multisets and Discrete Cones (with Marston Conder and Simon Marshall), *Order*, 24(4): 277–296.
10. How the Size of a Coalition Affects its Chances to Influence an Election, *Social Choice and Welfare*, 2006, 26(1): 143–153.
11. Exploratory Analysis of Similarities between Common Social Choice Rules (with J. McCabe-Dansted), *Decision and Negotiation*, 2006, 15(1), 77–107.
12. On the Average Minimum Size of Manipulating Coalition (with G. Pritchard), *Social Choice and Welfare*, 2006, 27(2), 263–277. Springer online: (2006) <http://dx.doi.org/10.1007/s00355-006-0130-2>.
13. Relative Uncertainty Aversion and Additively Representable Set Rankings (with W. Bossert), *International Journal of Economic Theory*, 2006, 2: 105–122.
14. On Complexity of Lobbying in Multiple Referenda (with Robin Christian, Mike Fellows and Frances Rosamond), *Proceedings of the 1st International Workshop on Computational Social Choice (COMSOC–2006)*. Eds. Ulle Endriss and Jérôme Lang. Universiteit van Amsterdam, 2006, 87–96. <http://staff.science.uva.nl/ulle/COMSOC-2006/comsoc2006.pdf>
15. Approximability of Dodgson's Rule (with John McCabe Dansted and Geoff Pritchard), *Proceedings of the 1st International Workshop on Computational Social Choice (COMSOC–2006)*. Eds. Ulle Endriss and Jérôme Lang. Universiteit van Amsterdam, 2006, 331– 344. <http://staff.science.uva.nl/ulle/COMSOC-2006/comsoc2006.pdf>
16. Answers to Two Questions of Fishburn on Subset Comparisons in Comparative Probability Orderings (with R. Christian), *Proceedings of The 4th International Symposium on Imprecise Probabilities and Their Applications (ISIPTA 05)*, Pittsburg, Pensylvania, 2005, 117–124.

17. How Large Should a Coalition Be to Manipulate an Election? *Mathematical Social Sciences*, 2004, 47(3): 289–293.
18. Comparing the rules Chamberlin's way (with Geoff Pritchard), Proceedings of the International Conference "Mathematical Modelling of Social and Economical Dynamics" (MMSED-2004), Moscow, 2004, pp. 337–340.
19. 1, 2, 4, 8, What comes next? *Extracta Mathematicae*, 2004, 19:155-161.
20. A Counterexample to Fishburn's Conjecture on Finite Linear Qualitative Probability (with Marston Conder), *Journal of Mathematical Psychology*, 2004, 48(6), 425–431.