

Sasha Rubin

Curriculum Vitae

July 2011

– Personal Data –

Date of Birth 16 February 1976
Citizenship New Zealand
Language English
Residence 2/15 Hororata Rd., Takapuna
Auckland, New Zealand
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– University Education –

Postdoctoral

5.2011–8.2011: Visiting Researcher, Department of Computer Science, Tel Aviv University.

2.2010–5.2010: Visiting Researcher and Lecturer, Department of Mathematics, University of Cape Town.

08.2008–12.2009: Visiting Assistant Professor, Department of Mathematics, Cornell University.

12.2005–02.2008: Honorary Research Fellow in the Department of Computer Science, University of Auckland. Supported by a New Zealand Science and Technology Postdoctoral Fellowship UOAX0413.

PhD – Mathematics and Computer Science

1999 – 2004: University of Auckland, New Zealand.

Supervisor: Bakhadyr Khoussainov

Thesis Title: Automatic Structures

MSc – Mathematics (first class)

1997 – 1998: University of Auckland, New Zealand.

BSc – Mathematics and Computer Science

1994 – 1996: University of Cape Town, South Africa.

– Summary of Research Interests –

My main interest is in the expressiveness of abstract models of computation such as finite automata. The bulk of my work has been theoretical and related to logic (automatic structures, finite model theory). I have also worked on automatically verifying properties of probabilistic systems.

– Research Activities –

Recent Seminar Talks

Tel Aviv (2011), Cape Town (2010), Cornell (2007, 2008, 2009), LSV Cachan (2008), CNRS LIAFA Paris 7 (2007), Heidelberg (2007)

Invited Talks

Working group reunion at LABRI Bordeaux (06.2008), Dagstuhl workshop 07441 ‘Algorithmic-Logical Theory of Infinite Structures’ (10.2007), Workshop on Logic and Algorithms satellite meeting ‘Finite and Algorithmic Model Theory’ in Durham (01.2006), Workshop on Automata, Structures and Logic in Auckland (12.2004).

Research visits

Erich Grädel and students at RWTH Aachen (08.2006 – 01.2007).
Valentin Goranko at the University of Witwatersrand (04.2006).
Workshop on Logic and Algorithms at Newton Institute (01.2006 – 02.2006).
Anil Nerode and students at Cornell University (10.2005).
Frank Stephan at University of Heidelberg (part of 2003).
Moshe Vardi at Rice University (part of 2001).
Stephan Lempp at University of Wisconsin-Madison (part of 2000).

Refereed

Journal of Symbolic Logic, Information and Computation, Journal of Logic and Computation, IEEE Symposium on Logic in Computer Science, Central European Journal of Mathematics, Logical methods in Computer Science, IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science, Theory and Practice of Logic Programming.

Most Recent Publications

Automata based presentations of infinite structures with V. Bárány and E. Grädel, in *Finite and Algorithmic Model Theory*, Series: London Mathematical Society Lecture Note Series (No. 379), 2011.

Cardinality and counting quantifiers on omega-automatic structures, with V. Bárány and L. Kaiser, 25th Annual Symposium on Theoretical Aspects of Computer Science, 2008.

Order invariant MSO is stronger than counting MSO, with T. Ganzow, 25th Annual Symposium on Theoretical Aspects of Computer Science, 2008.

Automata presenting structures: A survey of the finite-string case, The Bulletin of Symbolic Logic, Volume 14, Issue 2, 2008, 169-209.

— Awards —

Foundation for Research, Science and Technology

12.2005 – 2.2008: New Zealand Science and Technology Postdoctoral Fellowship.

University of Auckland

2004: Best doctoral thesis award.

2004: Montgomery memorial prize in logic from the Department of Philosophy.

1998: Competed as part of a team of three, in the world finals of the 1998 ACM Programming Contest in Atlanta, Georgia USA, representing the University of Auckland and New Zealand.