

CURRICULUM VITAE OF PROFESSOR ERIK PALMGREN

Personal Data

Complete name: Erik Henrik Palmgren
Date and place of birth: 3 January, 1963, Måttsund, Luleå, Sweden

Current affiliation

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Current position

Research Fellow at the Swedish Collegium for Advanced Study, January – June 2009.

Professor of mathematics, with specialization in mathematical logic. Year of appointment 2003.

Former appointments

1. NFR's doctoral position in mathematical logic, Uppsala University, 1 December 1987 – 30 June 1991.
2. Research assistant (Swed. "forskarassistent") in mathematical logic, Uppsala University, 1 July 1991 – 31 December 1996. On leave 19 October – 15 December 1995.
3. Assistant at Mathematisches Institut, Ludwig-Maximilians Universität München, 19 October – 15 December 1995.
4. University lecturer in mathematics, Gothenburg University, 1 January 1997 – 30 June 1997.
5. University lecturer in mathematics, with specialization in mathematical logic, Uppsala University, 1 July 1997 - 30 June 2002.
6. VR's senior researcher in mathematical logic from 1 July 2002 - 30 June 2008.
7. Research Fellow at the Swedish Collegium for Advanced Study, Uppsala January – June 2009.

Post Doctoral Visits and Guest Research

- Faculteit der Wiskunde en Informatica, Universiteit van Amsterdam, January – June 1992.
- Mathematisches Institut, L.-M. Universität München, 19 October – 15 December 1995.
- Matematisch Instituut, Universiteit Utrecht, November 1998.
- Institut Mittag-Leffler, January-June 2001.
- JAIST, Japan, February 2008.
- Oberwolfach meetings on Mathematical Logic, 2 – 8 April 1995, 18 – 24 January 1998, 20 – 26 March 2005, 6 – 12 April 2008.
- Research Fellow of the Swedish Collegium for Advanced Study, January – June 2009.
- Institut Mittag-Leffler, September – December, 2009.
- JAIST, Japan, February – March 2010.

Academic Degrees and Awards

University Degrees

FK in Computer Science, Uppsala University 1988 (Swedish: “FK på datavetenskapliga programmet 160p”)

FD (PhD) in Mathematics, Uppsala University, May 8, 1991.

Docent competence

Docent in mathematical logic at Uppsala University, March 16, 1994.

Awards

- Received in 1991 Bjurzon’s award for distinguished dissertation from the Faculty of Mathematics and Sciences at Uppsala University.
- Wallenberg prize awarded by the Swedish Mathematical Society 2000.

External Grants

Research Councils

1. TFR grant for a research assistant position in mathematical logic, 1 July 1991 – 31 December 1996. The project application called “Constructive Logical Systems” was explicitly designated for a research assistant position for myself, but the main contractor was V. Stoltenberg-Hansen.

2. NFR grant (50% of a salary) for the project “Konstruktiva logiska system”, 1 January 1997 – 31 December 1999 and 1 January 2000 – 31 December 2002.
3. Appointed to *Särskild forskartjänst i matematisk logik* in 2002 – 2008, financed by VR.
4. VR grant for guest researchers, 2005-2006 (130 000 SEK).
5. VR project grant (50% of a salary) 2009-2011.

EU grants

1. Employed for two months in 1995 on the EU project Twinning: Proof Theory and Computation (contract SC1*-CT191-0724 (TSTS)). Main contractor: Prof. Dr. H. Schwichtenberg, München.
2. Scientist-in-Charge for a 2 year Marie Curie Intra European Fellowship (project NEALTYPE) designated for Richard Garner, 2006.
3. Marie Curie IRSES grant (project CONSTRUMATH: Constructive mathematics, proof and computation) for staff exchange with Japan and New Zealand. (In cooperation with Munich and Padua.)

Evaluation of Grant Proposals

- Member of the grant committee in mathematics for the Swedish Research Council (VR). (Swedish: ledamot i beredningsgruppen för matematik och teknisk matematik.)
- Evaluation of grant application for NFR and TFR.
- Evaluation of grant application for the Council of Physical Sciences of the Netherlands Organization for Scientific Research (NWO).
- Evaluation of grant application for the Engineering and Physical Science Research Council, UK.
- Evaluation of grant application for U.S.-Israel Binational Science Foundation.
- Evaluation of grant application for the Academy of Finland.

Editorial board

I am member of the editorial board of *Journal for Logic and Analysis* (formerly *Logic and Analysis*).

Expert Assignments

Faculty Opponent (equivalent)

Opponent on Jan Cederquist’s licentiate thesis in computer science at Gothenburg University, 21 November 1994, and on David Wahlstedt’s licentiate thesis at the same institute, 29 October 2004.

External Examiner of Nicola Gambino's PhD thesis on December 3, 2002 at Manchester University.

Degree committees. Member of the degree committee at the following PhD thesis defenses:

Svetozar Serafimovski, mathematics, Stockholms universitet, 20 May 1994.
Alvaro Tasistro, computer science, Chalmers tekniska högskola, 16 May 1997.
Jens Blanck, mathematics, Uppsala universitet, 22 May 1997.
Jan Cederquist, computer science, Göteborgs universitet, 31 May 1997.
Tarmo Uustalu, computer science, Kungliga tekniska högskolan, 29 May 1998.
Björn Victor, computer science, Uppsala universitet, 4 June 1998.
Jesper Carlström, mathematics, Stockholms universitet, 2 June 2005.
Kidane Yemane, computer science, Uppsala universitet, January 2006.
Jens Brage, mathematics, Stockholms universitet, 6 April 2006.
Johan Glimming, computer science, Kungliga tekniska högskolan, 17 December 2007.

Prepublication referee for a PhD-thesis at the University of Helsinki 2003.

Referee assignments. Referee assignments have been carried out for the following journals:

Annals of Pure and Applied Logic, Archive for Mathematical Logic, BIT, Indagationes Mathematicae, Journal of ACM, Journal of Functional and Logic Programming, Journal of Logic, Language and Computation, Journal of Philosophical Logic, Journal of Symbolic Logic, Mathematical Logic Quarterly, Mathematical Structures in Computer Science, Proceedings of the American Mathematical Society, Theoretical Computer Science, Theoria.

Referee for conference proceedings:

Algebraic and Logic Programming 1994 and 1996, Computer Science Logic 2000 and 2010, Higher Order Algebra, Logic and Term Rewriting 1993, Logic in Computer Science 1991, International Conference on Logic and Algebra in honour of R. Magari, Rewriting Techniques and Applications 1999, Proceedings of TYPES 2000, FOSSAC 2004.

Conferences and Guest lectures

Guest Lectures

Inst. f. datavetenskap, Chalmers, Oct. 1990, Nov. 1992, Nov. 1994, May 1996, Dec. 1998.
Matematiska institutionen ("Matematiska kollokviet"), Chalmers, Nov. 1993
Dept. of Computer Science and Mathematics, Swansea, Dec. 1991 and Sept. 1993.
Lambda Intercity Seminar, Utrecht, March 1992.
Matematisch Instituut, Utrecht, Nov. 1993, June 1997.
Filosofiska inst., Helsinki, Nov. 1994.
Mathematisches Institut, Darmstadt, Dec. 1995.
Institut für Informatik, Tübingen, Dec. 1995.
Matematisk Institutt, Oslo, March 1996.
BRICS, Aarhus, July 1998.

Institut Mittag-Leffler, Nov. 2000.
Manchester University, Dec. 2002.
Mathematisches Institut, München, Jan. 2004.
Dept. Philosophy, Carnegie-Mellon University, March 2005.
JAIST, Japan, February 2008, February 2010.

Active Participation in International Conferences

Plenary Talk

Plenary speaker at Logic Colloquium '06 in Nijmegen, July 29 – August 2, 2006. (The European Meeting of the Association for Symbolic Logic.)

Invited Conference Talks

1. Semantics of type theory, Oslo 23 – 26 March 1988.
2. Workshop on programming logic, Båstad, 21 – 26 May 1989.
3. EC project meeting: Proof Theory and Computation, München, 28 – 30 May 1992.
4. Third Workshop on Logic and Computer Science, C.I.R.M. Luminy, France, 15 – 19 June 1992.
5. Presentation at the EC project meeting: Proof Theory and Computation, Leeds, 14 – 17 Sept. 1994.
6. Workshop on Categories and Types, Göteborg, 8 – 10 Jan. 1995.
7. Deduktive Aspekte der Beweistheorie und Informatik, München, 30 Nov. – 1 Dec. 1995.
8. Workshop on Applicative Theories and Explicit Mathematics, Bern, 19 – 21 June 1996
9. International Research Symposium on Nonstandard Analysis and its Applications, Edinburgh, 11 – 17 Aug. 1996.
10. Logic, Algebra and Computer Science. Helena Rasiowa in Memoriam. Banach Center, Warsaw, miniterm 2 – 22 Dec. 1996.
11. 65th Peripatetic Seminar on Sheaves and Logic, Aarhus, 1 – 2 Nov. 1997.
12. Research Workshop on Proof Theory, Leeds, 11 – 13 Febr. 1999
13. Second Workshop on Formal Topology, Venice, 3 – 7 Apr. 2002.
14. Dagstuhl seminar on Verification and Computer Algebra, January 2003.
15. From Sets and Types to Topology and Analysis, Venice, 12-16 May, 2003.
16. Logic Colloquium 2003, August 20-26, Helsinki. (Special session speaker).
17. Workshop on Philosophy of Mathematics, Uppsala, August 27-29, 2004.

18. Workshop on Constructive Logic and Mathematics, Benediktbeuren, 15-19 November 2004.
19. Dagstuhl seminar on Mathematics, Algorithms and Programs, January 2005.
20. Small TYPES workshop: Constructive analysis, types and exact real numbers, Nijmegen, October 3-4, 2005.
21. Trends in Constructive Mathematics, Frauenwörth, June 19-23, 2006.
22. Third Workshop on Formal Topology, May 5-12, 2007, Padua.
23. Russell'08, Proof Theory meets Type Theory, March 15-16, 2008, Swansea
24. Workshop on Constructivism: Mathematics and Logic. May 26-30, 2008, Kanazawa, Japan.
25. E.W. Beth Centenary Workshop in Mathematical logic. Subsection of European Mathematical Congress in Amsterdam, July 2008.
26. Sheaves in Geometry and Quantum Theory, September 3-5, 2008, Nijmegen.
27. Fall Southeastern Meeting of the AMS, October 30 - November 1, 2009.
28. Twenty-fifth Nordic and First British-Nordic Congress of Mathematicians, June 8-11, 2009, Oslo.
29. Workshop on Constructive Aspects of Logic and Mathematics, March 8-12, 2010, Kanazawa.
30. Set Theory, Classical and Constructive, May 6-7, 2010, Amsterdam.
31. Symposium on Programming and Constructive Mathematics, May 31, 2010, Gothenburg.

Lectures at Summer Schools

1. Lecturer at NATO Adv. Study Inst. on Constraint Programming, Pärnu, Estonia, 12 – 24 Aug. 1993.
2. Lecturer at the Copenhagen PhD Summer School in Logic, 11 – 22 Aug. 1997.
3. Lecturer at the TYPES Summer School in Logic, 15 – 26 Aug. 2005.
4. Lecturer at the Summer School in Philosophy of Mathematics, Roskilde, July 28 – August 1 2008.
5. Lecturer at the Summer School Mathematics, Algorithms and Proofs. International Centre for Theoretical Physics, Trieste, 11 - 28 August 2008.

Contributed Conference Talks

Presentation at the Logic Colloquium, Helsinki, 15 – 22 July 1990.
Int. Conf. on Logic, Methodology and Philosophy of Science, Uppsala, 7 – 14 Aug. 1991.
Int. Colloq. on Nonstandard Mathematics, Aveiro, Portugal, 18 – 22 July 1994.
Logic in Computer Science '95, San Diego, 26 – 29 June 1995.
Seventh Scandinavian Logic Symposium, Uppsala, 18 – 20 Aug. 1996.
Logic Colloquium '97, Leeds 6 – 12 July 1997.
79th Peripatetic Seminar on Sheaves and Logic, Doorn, The Netherlands, 28 – 29 June, 2003.
Presentation at the workshop Domains VII, Darmstadt, August 29 – September 1, 2004.
TYPES 2006, Nottingham, 18-21 April 2006.

(Presentation = talk given by collaborator in joint work.)

Organisation of International Meetings

- Minisymposium on Constructive Model Theory, Uppsala 17 May, 1995 (organised together with Jan Smith, Chalmers).
- Symposium on Types and Ordinal Notation Systems, Uppsala 11–12 April, 1996 (co-organiser).
- 75th Peripatetic Seminar on Sheaves and Logic, Institut Mittag-Leffler 9-10 June, 2001 (organised together with Anders Kock and Dana Scott).
- Symposium on Constructive Mathematics, Uppsala University, 30-31 August, 2004.
- Workshop on Identity Types, Uppsala University, 13-14 November 2006.
- Philosophy of Logical Consequence, SCAS, 31 October - 2 November 2008 (co-organiser).
- Philosophy and Foundations of Mathematics: Epistemological and Ontological Aspects, SCAS, Uppsala, 5-9 maj 2009. (chairman of the organization and programme committee).
- Co-organiser of Research Programme in Mathematical Logic at Institut Mittag-Leffler, September -December 2009.

Organisation of Seminars

I am a co-organiser of the Stockholm-Uppsala Logic Seminar.

International Engagements

Member of the executive board of the European Association for Computer Science Logic (1997/1998).

Member of the steering committee of Research Networking Programme INFITY supported European Science Foundation 2009-2014 (<http://www.esf.org/index.php?id=5948>)

Memberships and administrative assignments

- Member of the Council for the Computer Science Study Programme 1999-2001.
- Deputy elector of Teknisk-naturvetenskaplig fakultet 1999-2001.
- Member of the computer committee at the Department of mathematics 1998-2000.
- Member of the library council at the Beurling library 2001-2003.
- Member of the Board of the Department of Mathematics, deputy member 2000-2002, ordinary member 2003-2005.
- Member of the Joint Board of the Libraries in Medicine and Sciences at Uppsala University. (Biblioteksnämnd Linné.)
- Member of the Swedish National Committee for Logic, Methodology and Philosophy of Science (a committee of the Royal Academy of Sciences).

Thesis supervision

Main supervisor for the students

- Jonas Eliasson, FL degree (licentiatsexamen) in mathematical logic 31 May 2001. FL Thesis: Ultrapowers as sheaves on a category of ultrafilters. (He continued on the same subject and finished his PhD Thesis in December 2003, under the supervision of Dr. Steve Awodey and Prof. Viggo Stoltenberg-Hansen.)
- Johan Granström, PhD thesis defence on January 16, 2009.

Currently I am supervising two PhD-students in Mathematical logic:

- Olov Wilander, categorical logic.
- Anton Hedin, point-free topology and domain theory.

I have supervised three MSc thesis in mathematics

Patrik Anderson: Exact real arithmetic with automatic error estimates in a computer algebra system. June 2001. (Examensarbete, 20 poäng)

Martin Bender: Products and extensions of measure rings in the algebraic formulation of measure theory. July 2001. (Examensarbete, 20 poäng)

Fredrik Nordvall Forsberg, Constructive aspects of models for non-standard analysis , June 2009. (Examensarbete 30 högskolepoäng)

Graduate and Undergraduate Teaching (brief version)

I have teaching experience since 1990, teaching on the average two courses per year (80-100 hours), in subjects ranging from basic algebra, linear algebra, discrete structures, calculus of several variables, automata theory, basic logic, applied logic, information and coding theory, at the undergraduate level, to graduate courses in model theory and set theory, constructive logic and lambda calculus, domain theory, models of arithmetic, foundations of analysis, logical frameworks, complexity theory and topos theory.

Popularisation of Science

Public lecture *primtal och ändlig geometri* (Prime numbers and finite geometry) at Museum Gustavianum 8 November 2000.

Inauguration lecture *Konstruktiv logik - bevis som algoritmer* (Constructive logic - proofs as algorithms) at Uppsala University 12 November 2003.

Written the article “Oavgörbara problem om ord och tal”, a popular science article in Swedish directed to teachers and students of the gymnasium and the general public.