

# Curriculum Vitae

Aarne Ranta

January 2021

## Personal Data

- name Aarne Ranta
- born 11 May 1963 in Tampere, Finland
- Finnish and Swedish citizen
- married, 4 children

## Academic Degrees

- PhD 1990 Theoretical Philosophy (Logic), University of Helsinki, title *Studies in Constructive Semantics*. Supervisor Per Martin-Löf, University of Stockholm (PhD studies at U Stockholm 1987–1990).
- Phil. Mag. 1987 Philosophy, Mathematics, Linguistics (University of Helsinki)

## Post-doctoral degrees

- Docent of Computer Science 2001 (University of Gothenburg)
- Docent of Theoretical Philosophy 1991 (U Helsinki, U Tampere)

## Current Position

- Professor of Computer Science, University of Gothenburg, 1 July 2005-
- Digital Grammars Gothenburg AB, founder and CEO, 15 March 2014-

## Previous Positions

- 2017-2020: Head of Division, Functional Programming, CSE, Chalmers and University of Gothenburg
- 2008-2010: Head of Division, Computing Science, CSE, Chalmers University of Technology and University of Gothenburg
- 1999-2005: Chalmers and Gothenburg University, Department of Computing Science, Lecturer/Associate Professor

- 1997-1999: Xerox Research Centre Europe, Grenoble. Visiting Professor/Research Engineer in the Multilingual Theory and Technology Group
- 1994-1998: Academy of Finland, Junior Fellow, placed at University of Helsinki
- 1990-1994: Academy of Finland, Research Assistant, placed at University of Helsinki
- 1990: 3 months stay at University of Amsterdam
- 1987-1990: Academy of Finland, Graduate Student grant, placed at University of Stockholm

### Leaves

- 2005: parental leave, 3 months, 40%
- 2015-16, 2018-19: leave for starting a company, 27 months 40% (from 1 April 2019: 20%)

### Languages

- Native: Finnish
- Full professional proficiency: Swedish, English
- Professional working proficiency: French, German
- Limited working proficiency: Italian
- Elementary proficiency: Dutch, Spanish
- University courses: Latin, Ancient Greek

### Awards

- 2018, Honorary Doctor, Faculty of Natural Sciences, University of Tampere
- 2016-, member of the Royal Society of Arts and Sciences in Gothenburg (KVVS)

### Supervised Doctoral Degrees

- Prasanth Kolachina 2019
- Inari Listenmaa 2019 (as co-supervisor)
- Grégoire Détrez 2016
- Ramona Enache 2013
- Shafqat Virk 2013
- Dana Dannélls 2013 (as co-supervisor)
- Krasimir Angelov 2012
- Muhammad Humayoun 2012 (U Grenoble, as co-supervisor)
- Björn Bringert 2008
- Markus Forsberg 2007
- Janna Khagai 2006
- Kristofer Johannisson 2005
- Peter Ljunglöf 2004

### **Research Grants as Principal Investigator**

- 2013-2017: Vetenskapsrådet (Sweden), "Reliable Multilingual Digital Communication: Methods and Applications", ca. 2000 kEUR
- 2010-2013: European Commission (FP7), "MOLTO (Multilingual Online Translation)" (FP7-ICT-247914), 2375 kEUR, extended with 600 kEUR in 2012-2013
- 2006-2009: Vetenskapsrådet (Sweden), "Library-Based Grammar Engineering", ca. 200 kEUR
- 2001-2004: VINNOVA (Sweden), "Interactive Language Technology", ca. 450 kEUR
- 1994-1998: Academy of Finland, Junior Fellow grant, ca. 60 kEUR
- 1990-1994: Academy of Finland, Research Assistant grant, ca. 100 kEUR
- 1987-1990: Academy of Finland, Graduate Student grant, ca. 70 kEUR

### **Organization of conferences**

- GEAF workshop at ACL-2015, Beijing, co-chair
- GF Summer School 2018 (Stellenbosch, South Africa), 2017 (Riga, Latvia), 2015 (Marsalforn, Malta) co-chair, 2013 (Fraueninsel, Germany) co-chair, 2011 (Barcelona) co-chair, 2009 (Gothenburg) chair
- EACL-2014, Gothenburg, local co-chair
- FreeRBMT-2012, Gothenburg, PC chair
- GoTAL-2008, Gothenburg, PC chair and organization chair

### **Positions of Trust**

- 2016-2017, board member of Språkbanken (Bank of Swedish)
- 2015-2016, member of Faculty Board ("Fakultetsstyrelsen"), Faculty of Information Technology, University of Technology
- 2013-2016, co-chair of Faculty ("Kollegium"), Department of Computer Science and Engineering, Chalmers University of Technology and University of Gothenburg
- 2012-2016, chair of the Local Recruitment Committee, Department of Computer Science and Engineering, Chalmers University of Technology and University of Gothenburg
- 2009-2015, co-director of Grammar Technology Lab, Centre of Language Technology (Focus Area of Research), University of Gothenburg
- 2009-2015, member of Steering Group, Centre of Language Technology (Focus Area of Research), University of Gothenburg
- 2008-2010, member of Steering Group, Department of Computer Science and Engineering, Chalmers University of Technology and University of Gothenburg
- 2008-2011, member of Steering Group, Computer Science Education Programme, University of Gothenburg
- 2006-2007, member of Advisory Group, Computer Science Education Programmes, Chalmers University of Technology and University of Gothenburg

burg

- 1999-2008, member of Steering Group, Computational Linguistic Education Programme, University of Gothenburg,

### External PhD Evaluation Tasks

- 2017 Oct. Department of Mathematics, University of Vienna, Austria. PhD defence, Kevin Kofler, examiner.
- 2017 Sep. Department of Computer Science, University of Umeå, Sweden. PhD defence, Niklas Zechner, member of evaluation board.
- 2011 Feb. Institute of Mathematics and Computer Science, University of Latvia, Riga, Latvia. PhD defence, Normunds Gruzitis, opponent.
- 2010 Jun. Department of Computer Science, University of Cambridge, U.K. PhD defence, Mohan Ganesalingam, external examiner.
- 2009 Nov. Department of Mathematics, University of Paris 7, France. PhD defence, Benoît Rachet, examinateur.
- 2009 Oct. Department of Computer Science, University of Växjö, Sweden. PhD defence, Jens Nilsson, member of evaluation board.
- 2009 Apr. Department of Linguistics, University of Gothenburg, Sweden. PhD defence, Fredrik Kronlid, member of evaluation board.
- 2007 Sep. Department of Computer Science, University of Nancy, France. PhD defence, Joseph le Roux, rapporteur.
- 2007 May. Department of Computer Science, University of Turku, Finland. PhD defence, Filip Ginter, pre-examiner.
- 2006 Nov. Department of Mathematics, University of Savoie, Chambéry, France. PhD defence, Patrick Thévenon, rapporteur.
- 2006 Jun. Department of Computer Science, University of Durham, UK. PhD defence, Jian-Min Pang, external examiner.
- 2006 Jun. Numerical Analysis and Computer Science, Royal Institute of Technology, Stockholm, Sweden. PhD defence, Jonas Sjöbergh, member of evaluation board.
- 2005 Oct. Department of Computer Science, University of Växjö, Sweden. PhD defence, Joakim Nivre, member of evaluation board.
- 2005 Apr. Numerical Analysis and Computer Science, Royal Institute of Technology, Stockholm, Sweden. PhD defence, Johnny Bigert, member of evaluation board.
- 2001 Jun. Department of Linguistics, University of Gothenburg, Sweden. PhD defence, Staffan Larsson, member of evaluation board.
- 2000 Sep. Department of Computer Science, University of Nice, France. PhD defence, Yann Coscoy, rapporteur.
- 2000 Sep. Department of Linguistics, University of Copenhagen, Denmark. PhD defence, Peter Juel Henriksen, faculty opponent.
- 1997 May. Department of Computing Science, Chalmers University of Technology, Gothenburg, Sweden. PhD defence, Alvaro Tasistro, member of evaluation board.

### Internal PhD Evaluation Tasks

- 2016 Bassel Mannaa, member of evaluation board
- 2009 Alejandro Russo, member of evaluation board
- 2007 Jan-Willem Roorda, member of evaluation board
- 2006 Carlos Gonzalía, member of evaluation board
- 1993 Petri Mäenpää, pre-examiner (University of Helsinki)

### Other Evaluation Tasks

- 2019 NAACL (North-American Association of Computational Linguistics), PC member.
- 2019 IWCS (International Workshop of Computational Semantics), PC member.
- 2018 University of Turku, Finland, Professor ("apulaisprofessori") promotion evaluator.
- 2018 *Software Tools for Technology Transfer*, article reviewer.
- 2016 Linköping University, Professor ("biträdande professor") promotion evaluator.
- 2016 Open University of Israel, Senior Lecturer promotion evaluator.
- 2015 PIC-2015 (Progress in Informatics and Computing), Nanjing, Steering Committee member.
- 2015 GEAF workshop at ACL-2015 (Grammar Engineering across Frameworks), PC co-chair.
- 2015 *Knowledge-Based Systems*, article reviewer.
- 2015 Academy of Finland, project reviewer.
- 2014 University of Washington, Full Professor promotion evaluator.
- 2014 University of Turku, Docent (Associate Professor) promotion evaluator.
- 2014 SLTC-2014 (Swedish Language Technology Conference), Uppsala, PC member.
- 2014 SEM-2014 (Third Joint Conference on Lexical and Computational Semantics), Dublin, PC member.
- 2014 CNL-2014 (Controlled Natural Language), PC member.
- 2014 *Journal of Logic, Language and Information*, article reviewer.
- 2014 EACL-2014 (European Association of Computational Linguistics), Gothenburg, conference local co-chair.
- 2014 PIC-2014 (Progress in Informatics and Computing), Shanghai, Steering Committee Co-Chair.
- 2013 Research Council of Norway, grant proposal reviewer.
- 2013 *North-European Journal of Language Technology*, article reviewer.
- 2012 COLING, Mumbai, PC member.
- 2012 Royal Institute of Technology (KTH), Stockholm, adjunct professorship reviewer.
- 2012 CNL workshop, Zurich, PC member
- 2012 CiCLING, Delhi, PC member.

- 2012 University of Helsinki. docent application reviewer.
- 2011 *Linguistics in Language Technology*, article reviewer.
- 2011 Research Council of Norway, grant proposal reviewer.
- 2011 INRIA, France, research area reviewer.
- 2011 LIHMT conference, Barcelona, PC member.
- 2011 University of Lund, Sweden, professor promotion reviewer.
- 2011 ACL-HLT conference, Portland, PC member
- 2011 LACL conference, Toulouse, PC member
- 2010 *Studia Logica*, article referee
- 2010 Leverhulme Trust, UK, research grant referee
- 2010 CNL workshop, Marettimo, PC member
- 2010 Oxford University Press, book referee
- 2010 IceTAL conference, Reykjavik, PC member
- 2009 *Journal of Logic, Language, and Information*, article referee
- 2009 University of Cambridge, UK, Trinity College PhD fellowship reviewer
- 2009 NODALIDA Conference, Odense, member of evaluation board
- 2009 EACL Conference, Athens, member of Morphology track evaluation team
- 2008 GoTAL conference, Gothenburg, PC chair
- 2008 *Journal of Logic, Language, and Information*, article referee
- 2007 EPSRC, UK, project reviewer
- 2007 ACL-Speechgram workshop, PC member
- 2007 *Research on Logic and Computation*, article referee
- 2006 *ACM Computation Surveys*, article referee
- 2003 *LNCS*, article referee
- 1994 Tekniska Forskningsrådet, Sweden, project reviewer
- 1994 *Studia Logica*, article referee
- 1992 SWON, The Netherlands, project reviewer
- 1988 *Synthese*, article referee
- 1987 *Synthese*, article referee

#### Teaching: textbook

- A. Ranta. *Implementing Programming Languages. An Introduction to Compilers and Interpreters*, with an appendix coauthored by Markus Forsberg, College Publications, London, 2012.

#### Teaching: regular courses

- Introduction to Programming in Python, 2017-
- Databases, 2015-2019
- Computational Syntax of Natural Language (Masters Programme in Language Technology, Gothenburg), 2011-
- Programming Language Technology (a first course on compilers) 2007-2014.

- Datorintroduktion (a freshman introduction to programming in Haskell), 2007-2009
- Natural Language Technology (for computer science students), 2004-2006
- Compiler Construction, a second course on compilers, 2002-2006
- Programmering för naturvetare (a first-year course on Haskell, 1999-2001)
- Logic and language theory: over 10 courses at U Helsinki and U Tampere in 1990–1997

#### Teaching: guest lecturer courses

- Programming Language Technology at Sichuan University, Chengdu (July 2016) and Sun Yat-Sen University, Guangzhou (November 2016)
- Grammatical Framework at Sun Yat-Sen University, Guangzhou, with a special focus on Chinese, 2013.
- Machine Translation, (Erasmus Mundus Masters Programme in Language and Communication Technologies, Malta, March 2013, 2015, 2017)
- Computational Morphology (Erasmus Mundus Masters Programme in Language and Communication Technologies, Malta, March 2011 and 2012)
- Grammatical Framework Summer Schools: Gothenburg 2009, Barcelona 2011, Frauenchiemsee 2013, Marsalforn 2015, Riga 2017, Stellenbosch 2018
- ESSLLI Summer Schools: Saarbrücken 1991, Colchester 1992, Aix-en-Provence 1997, Vienna 2003, Dublin 2007

#### Teaching: master thesis supervision

- 1994–2021: over 40 at Chalmers, GU, U Helsinki, U South Africa

#### Publications

Top-5 publications in terms of citations (citations in Google scholar as of 27 January 2021 in parentheses)

- S Negri, J Von Plato, A Ranta, *Structural proof theory* Cambridge University Press, 2001. (549)
- A. Ranta, *Type-theoretical grammar* Oxford University Press, 1994. (542)
- A. Ranta, Grammatical framework, *Journal of Functional Programming* 14 (2), pp. 145-189, 2004. (387)
- A. Ranta, *Grammatical framework: Programming with multilingual grammars* CSLI Publications, Stanford, 2011; Chinese translation by Yan Tian, Shanghai Jiao Tong University Press, 2014. (258)
- A. Ranta, The GF resource grammar library *Linguistic Issues in Language Technology* 2 (2), pp. 1-63, 2009. (128)

Total citations 3665, h-index 25. For a full, up-to-date list of publications, see my [Google Scholar profile](#)

### Invited talks

- 2018 August. Honorary Doctor Symposium, Faculty of Natural Sciences, University of Tampere. Talk: Grammars as Computer Programs.
- 2018 March. World Forum on Controlled Natural Languages, Florence, Italy. Invited talk: Multilingual CNL in GF and at Digital Grammars.
- 2018 February. Metis Forum, Gothenburg. Invited talk: Mobil tolkningsapp för ambulanspersonalen ("Mobile interpreter app for ambulance personnel")
- 2018 February. Gothenburg-Stockholm Workshop on Proof Theory, Model Theory, and Probability in Natural Language, CLASP, Gothenburg. Invited talk: Concept Alignment for Compositional Translation.
- 2017 November. Voices of Democracy, Digital Humanities project kick-off meeting, University of Tampere. Invited talk: Grammatical Modelling.
- 2017 June. Logic and Machine Learning Conference, Gothenburg. Invited talk: Explainable Machine Translation with Interlingual Trees as Certificates.
- 2017 May. Vetenskapsfestivalen, Gothenburg (popular science fair). Talk: När kan man lita på maskinöversättning? ("When can one trust machine translation?")
- 2017 April. University of Malta. Invited talk: From Universal Dependencies to Abstract Syntax.
- 2017 March. Chalmers Initiative Seminar Digitalization - Opportunities and Challenges, Gothenburg. Invited talk: Automatic Translation for Consumers and Producers.
- 2016 September. Google Tech Talk, Zurich. Grammatical Framework: Formalizing the Grammars of the World.
- 2016 July. University Immersion Programme, Sichuan University, Chengdu. Lecture series: Compiler Construction Hands On. 32 hours.
- 2016 May. FOSS North, Gothenburg.
- 2016 January. Grammatical Framework and African Languages workshop, University of South Africa, Pretoria. Four lectures.
- 2015 December. PIC-2015, Nanjing. Keynote speaker.
- 2015 October. SPLST'15, 14th Symposium on Programming Languages and Software Tool, Tampere. Keynote speaker.
- 2015 October. German Society of Computational Linguistics, annual conference, Essen. Keynote speaker.
- 2015 September. Oxford Global Symposium, Oxford University Press. Invited participant.
- 2015 June. Workshop on Machine Translation, University of Helsinki. Invited talk: Machine Translation: Green, Yellow, and Red.
- 2015 January. Shonan workshop on Logics for Description. Invited talk: From Interlingua to Interlinguas
- 2015 January. Popular science talk at "Akademiska kvarten". Film (in Swedish):
- 2014 November. Hong Kong Polytechnic University. Invited talk: *Ma-*



*chine Translation: Green, Yellow, and Red.*

- 2014 November. Shanghai University of Finance and Economy, China. Invited talk: *Machine Translation for Producers of Information.*
- 2014 November. Beijing University of Language and Culture, China. Invited talk and tutorial: *Chinese in the Grammatical Framework. What There is and What You Can Do.*
- 2014 October. Sun Yat-Sen University, China. Invited talk and tutorial: *Chinese in the Grammatical Framework. What There is and What You Can Do.*
- 2014 September. Department of Mathematics, University of Stockholm. Tutorial and invited talks.
- 2014 September. WoLLIC-2014 (Workshop on Logic, Language, Information, and Computation), Valparaiso, Chile. Invited talk: *Syntax and Semantics for Translation,*
- 2014 August. CNL-2014 (Controlled Natural Language), Galway, Ireland. Invited talk: *Embedded Controlled Languages.*
- 2014 July. Vienna Summer of Logic, NLCS/NLSR Workshop. Invited talk: *Machine Translation: Green, Yellow, and Red.*
- 2014 May. Vetenskapsfestivalen, Gothenburg. Two presentations: *Den grammatiska datorn* (with John Camilleri and Inari Listenmaa), *Vägar till bättre maskinöversättning* (with Krasimir Angelov and Thomas Hallgren)
- 2014 Apr. EACL Workshop Type Theory and Natural Language Semantics, invited talk: *Records and Types for Predication*
- 2014 Mar. Grammatikfestivalen, Gothenburg. Presentation: *Gör det själv grammatiker på dator* (with Thomas Hallgren).
- 2014 Jan. Max Planck Institute, Nijmegen. Talk: *Language Comparison with Abstract Syntax.*
- 2013 Nov. Global Day, University of Gothenburg, Sweden. Presentation (with John Camilleri, Ramona Enache, Inari Listenmaa): *Coding the Grammars of the World.*
- 2013 Nov. Cafe-å-lär, Chalmers exhibition "fysikaliska leksaker", Sweden. Invited talk: *Kan man lita språköversättning med maskin?* ("Can we trust in language translation by a machine?")
- 2013 Sep. Sun Yat-Sen University, Guangzhou, China. Invited lecture series: Grammatical Framework.
- 2013 May. Linguistic Association of Finland, annual conference, Tampere, Finland. Invited talk: *Abstract Syntax, Finnish, and the Languages of the World.*
- 2013 Apr. Technical Translators' Association of Sweden, annual conference, Gothenburg, Sweden. Invited talk: *Vad kan en facköversättare vänta sig av maskinöversättning?* ("What can a professional translator expect from machine translation?")
- 2013 Mar. European Masters (Erasmus Mundus) in Language Technology, University of Malta, Malta. Invited lecture series: Machine Translation.
- 2013 Jan. Séminaire sémantique, Lille, France. Invited talk: *Language Games and Formal Grammars*

- 2012 Oct. Shanghai Jiao Tong University, China. Tutorial on Grammatical Framework and invited talk on Multilingual Online Translation.
- 2012 Sep. Workshop on Multilingual Semantic Web, Dagstuhl, Germany. Invited presentation: *Multilingual Grammars for the Semantic Web*.
- 2012 Mar. European Masters (Erasmus Mundus) in Language Technology, University of Malta, Malta. Invited lecture series: Computational Morphology.
- 2012 Jan. Xerox Research Centre Europe, Grenoble, France. Invited talk: *Multilingual Online Translation*.
- 2011 Dec. Truth-Makers and Proof-Objects, Paris, France. Invited talk: *Proof objects for the languages of the world*.
- 2011 Aug. CADE-23, Automated Deduction, Wroclaw, Poland. Invited talk: *Translating between Language and Logic: What Is Easy and What is Difficult?*
- 2011 Jun. LOCI II Workshop, London, UK. Invited talk: *Machine Translation, Type Theory, Dependent Types*
- 2011 Apr. University of Zurich, Switzerland. Invited talk.
- 2011 Mar-Apr. European Masters in Language Technology, University of Malta, Malta. Invited lecture series.
- 2011 Jan. International Workshop on Free/Open-Source Rule-Based Machine Translation, Barcelona, Spain. Invited talk.
- 2010 Oct. Nordic Seminar on Language Technology and Accessibility, SLTC, Linköping, Sweden. Invited talk *MOLTO: Machine Translation to Rely on?*
- 2010 Oct. TYPES Meeting, Warsaw, Poland. Invited talk *Machine Translation and Type Theory*.
- 2010 Feb. Google EMEA Faculty Summit, Zurich, Switzerland. Invited Academic in the Natural Language Processing track.
- 2009 Dec. Department of Mathematics, University of Bonn, Germany. Guest lecture *GF and the Language of Mathematics*.
- 2009 Nov. INRIA Rocquencourt, France. Guest lecture *Compiling Natural Language: Recent Developments in GF*.
- 2009 May. University of Uppsala, Sweden. Invited speaker at a Symposium on Type Theory. Talk *Levels of Abstraction in Language and Logic*.
- 2008 May. Indian Institute of Technology, Bombay, India. Workshop on GF, UNL, and Machine Translation.
- 2007 Dec. Department of Computational Linguistics (CIS), University of Munich, Germany. Guest lecture.
- 2007 Dec. Department of Computer Science, University of Tuebingen, Germany. Invited talk: *Dialogue Systems and Type Theory*.
- 2007 Jun. Ecole Normale Supérieure, Paris, France. Workshop to the honour of Gérard Huet, invited talk: *Parametrized Modules in Grammar Engineering*.
- 2007 Jun. Department of Mathematics, University of Marseille, France. Ludics Workshop, invited talk.
- 2007 Jan. INRIA Lorraine and University of Nancy, France. Guest lecture.

- 2006 Nov. Department of Mathematics, University of Savoie, Chambéry, France. Guest lecture.
- 2006 May. Department of Informatics, University of Edinburgh, UK. Guest lecture.
- 2006 Mar. CNRS, Paris, France. Invited speaker at a Symposium on Type Theory.
- 2006 Feb. Department of Mathematics, University of Marseille, France. Invited speaker at Geocal Symposium.
- 2005 Nov. Department of Linguistics, University of Helsinki, Finland. GF-WebALT workshop.
- 2005 Jun. Department of Mathematics, University of Helsinki, Finland. Invited speaker at WebALT symposium.
- 2005 Feb. Department of Mathematics, University of Stockholm, Sweden. Guest lecture.
- 2004 Dec. Department of Linguistics, University of Paris 7, France. Invited speaker at Demonat workshop.
- 2004 Jun. Department of Computer Science, University of Koblenz, Germany. Invited speaker at KeY workshop.
- 2004 Feb. Department of Philosophy, University of Leyden, The Netherlands. Invited speaker at a Type Theory workshop.
- 2003 Dec. INRIA Rocquencourt, France. Guest lecture.
- 2003 Oct. Department of Computer Science, University of Manchester, UK. Guest lecture.
- 2002 Dec. Department of Computer Science, University of Karlsruhe, Germany. Guest lecture.
- 2002 Oct. Department of Philosophy, University of Helsinki, Finland. Invited speaker at Scandinavian Philosophy Symposium.
- 2002 Apr. Xerox Research Centre Europe, Grenoble, France. Guest lecture.
- 2001 Dec. DFKI and Department of Computer Science, University of Saarbruecken, Germany. Guest lecture.
- 2001 Mar-Apr. EHESS and University of Paris 4, France. Guest lecture series.
- 2000 Sep. INRIA Sophia Antipolis, Antibes, France. Guest lecture.
- 1999 Dec. Department of Computer Science, University of Turin, Italy. Guest lecture series.
- 1999 Apr. DFKI, University of Saarbruecken, Germany. Invited speaker at ELSNET workshop.
- 1998 Mar. INRIA Lorraine and University of Nancy, France. Invited speaker at a workshop on categorial grammar.
- 1997 Nov. Department of Philosophy, University of Neuchatel, Switzerland. Invited speaker at a symposium on logic.
- 1997 Jun. University of Paris 1/Sorbonne, France. Invited speaker at symposium "Logique et les sciences humaines".
- 1997 Apr. Department of Linguistics, University of Gothenburg, Sweden. Guest lecture.

- 1996 Feb. INRIA Lorraine and University of Nancy, France. Guest lecture.
- 1996 Feb. EHESS and University of Paris 4, France. Guest lecture.
- 1995 Oct. Department of Mathematics, University of Padua, Italy. Invited speaker in "25 Years of Type Theory".
- 1995 Sep. INRIA Lorraine and University of Nancy, France. Invited speaker, first conference on Logical Aspects of Computational Linguistics.
- 1995 Sep. Department of Informatics, University of Grenoble, France. Guest lecture.
- 1995 Sep. Xerox Research Centre Europe, Grenoble, France. Guest lecture.
- 1994 Jun. Department of Linguistics, University of Konstanz, Germany. Invited speaker at a symposium on language and logic.
- 1994 Jun. Department of Computational Linguistics (CIS), University of Munich, Germany. Guest lecture series.
- 1994 Jun. Department of Computer Science, Chalmers University of Technology, Sweden. Invited speaker at TYPES conference in Båstad.
- 1994 Mar. Department of Linguistics, School of African Studies, London, UK. Invited speaker at a workshop on grammars and logic.
- 1993 May. Department of Computer Science, University of Nijmegen, The Netherlands. Invited speaker at TYPES conference.
- 1993 Feb. Department of Mathematics, University of Amsterdam, The Netherlands. Guest Lecture.
- 1993 Feb. Department of Philosophy, University of Utrecht, The Netherlands. Invited speaker in a logic workshop.
- 1993 Feb. Department of Linguistics, University of Konstanz, Germany. Guest lecture.
- 1993 Feb. Department of Linguistics, University of Tuebingen, Germany. Guest lecture.
- 1992 Dec. Department of Computing Science, Chalmers University of Technology, Sweden. Guest lecture.
- 1992 Sep. Department of Philosophy, University of Leyden, The Netherlands. Invited speaker at a Type Theory workshop.
- 1992 Feb. Department of Linguistics, University of Konstanz, Germany. Guest lecture.
- 1992 Feb. Department of Computer Science, University of Tuebingen, Germany. Guest lecture.
- 1991 May. Department of Linguistics, University of Konstanz, Germany. Invited speaker at a symposium on lexical semantics.
- 1990 Jul. Department of Computational Linguistics (CIS), University of Munich, Germany. Invited speaker, workshop on Categorical Grammars.
- 1990 Jan-Apr. Department of Mathematics, University of Amsterdam, The Netherlands. Guest fellow.
- 1989 Dec. Department of Computing Science, Chalmers University of Technology, Sweden. Guest lecture.
- 1988 Nov. Department of Mathematics, University of Amsterdam, The Netherlands. Guest Lecture.