CURRICULUM VITAE

Name: Glynn Winskel

Date and place of birth: 23.5.53, Lancaster, England.

Family: Married, with two daughters.

Nationality: British.

Work addresses:
University of Cambridge Computer Laboratory
William Gates Building
15 JJ Thomson Avenue
Cambridge CB3 0FD
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Qualifications:

- B.A. in Mathematics, M.A., University of Cambridge (1975).

- M.Sc. in Mathematics, specialising in Mathematical Logic, University of Oxford (1976).

- Ph.D. in Computer Science, University of Edinburgh (Awarded 1980, Conferred 1981).

- Sc.D., University of Cambridge (1995).

Positions:

- Research Associate, Computer Science Department, University of Edinburgh (September 1979–August 1980).

- Visiting Lecturer, Computer Science Department, University of Aarhus, Denmark (September 1980–December 1980).

- Royal Society Postdoctoral Research Fellow, University of Aarhus, Denmark (January 1981–January 1982).

- Research Scientist, Computer Science Department, Carnegie-Mellon University (March 1982–December 1983).

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- University Lecturer in Computer Science, University of Cambridge (January 1984–October 1987)

- Director of Studies in Computer Science at King's College, Cambridge (October 1984–September 1985).

- Fellow of King's College, Cambridge (July 1985–July 1988).

- Reader in Theoretical Computer Science *ad hominem*, University of Cambridge (October 1987–July 1988).

- Professor of Computer Science, University of Aarhus, Denmark (July 1988–October 2000).

- Director of BRICS, Centre for Basic Research in Computer Science, University of Aarhus, Denmark (January 1994–October 2000).

- Professor of Computer Science, University of Cambridge, England (October 2000–).

- Fellow of Emmanuel College, Cambridge (October 2000–).

Consultancy:

- TopExpress, Cambridge (1986–87).

- Microsoft Research Laboratory, Cambridge, Visiting Researcher (around 2 months a year) (1998–2000) .

Research interests:
Theoretical computer science and related mathematics, especially applications of logic and category theory to computer science. Interests range through the semantics of programming languages, mathematical foundations of denotational semantics, domain theory, logic of programs, mathematical models and proof systems for concurrent computation, models and proof systems for the specification and verification of hardware, type theories, functional programming, automated proof, model checking, computer security.

Administration: Sundry university and college committees. Aarhus: Director of BRICS (1994-2000). Cambridge: Chair of Senior Promotions, Director of Graduate Education, On committee for internal review of Mathematics at Cambridge (2004), Head of Emmanuel College Research Fellowships Committee (2005-6), (2008-9).

Miscellaneous activities:

On the editorial board of "Mathematical Structures in Computer Science" Cambridge University Press. On the editorial board of "Transactions on Petri Nets and Other Models of Concurrency" Springer Lecture Notes in Computer Science. Guest Editor of Information and Computation LICS'97 Special Issue. Guest Editor "Annals of Pure and Applied Logic" devoted to the proceedings of PTAC (1998). Member of LICS Organizing Committee (1996–2003), Advisory Committee (2004–), on the three-man LICS Test-of-Time Award Committee 2006-7 and 2008-9, Chair of LICS Test-of-Time Award Committee 2009-2010. Advisory board of the journal Higher-Order and Symbolic Computation. Editorial Board of Semantic Structures in Computation, Kluwer Academic Publishers. Advisory Board Higher Order and Symbolic Computation (HOSC) (2002—). On Board of EASL (European Association of Symbolic Logic) (2005—). Served as referee for numerous international journals and conferences as well as reviewer of NSF and Canadian research proposals. I organised the BRICS Summer School in Semantics of Computation, 1999. Served on numerous evaluation committees, occasionally as chairman. Some programme committees: Mathematical Foundations of Program Semantics, New Orleans, 1995; Logic In Computer Science '96, Rutgers; Logic In Computer Science '97, Warsaw, Chairman; International Conference on Automata Languages and Programming '98, Aalborg, Co-chairman; CONCUR'99; FOSSACS 2000; WOLLIC'02; CONCUR'03; APPSEM'04; WISP'04; APPSEM'05; CONCUR'05; FOSSACS'05; UFO'07; FICS'08.

Examination and Evaluation duties:

PhD examiner for the universities of Oxford, Cambridge (in Pure Mathematics and Computer Science), University of Copenhagen, Denmark's Technical University at Lyngby, Edinburgh, Ecole Polytechnique and Ecole Nationale Supérieure des Mines, Paris, Manchester, Marseilles, Aalborg, Aarhus, Sussex, Université du Québec à Montreal, Rennes and the Free University of Amsterdam. D.Sc. examiner for Sheffield and Aarhus universities. On evaluation committees for research positions, assistant-lectureship, lectureship, readership and professorship positions in Denmark, Sweden, Germany and the UK. EU reviewer. Public Examiner in the Honour School of Mathematics and Computation, Public Examiner in the Honour School of Computation, University of Oxford (1997-2000). MFOCS Examiner in Oxford (Mathematics and CS) 2002-05.

Research projects:

BRICS: Founding director of BRICS (Basic Research in Computer Sci-

ence), research centre of the Danish Research Foundation in theoretical computer science based primarily at Aarhus University with a budget of over 1 million US dollars a year. BRICS started officially in January 1994. Within BRICS research ranges from the traditional areas of logic, semantics and algorithmics to new initiatives in quantum cryptology jointly with the Physics department. Later the BRICS PhD School was established with an extra 1.5 million dollars a year with Mogens Nielsen as director. See www.brics.dk for information on BRICS activities and researchers.

Site leader of EU projects CEDISYS, CLICS I and II, LINEAR, APPSEM. On the steering and programme committees of DART a medium size research collaboration between Aarhus, Aalborg and Copenhagen universities (1992-1994). Holder of a Danish Research Council grant (1989-92). SERC grantholder at Cambridge on "Models and logic for parallel computation" (1985-88). EPSRC grantholder at Cambridge on "Domain theory for concurrency—new categorical foundations" (2005-08). Awarded Leverhulme Trust guest professorship grant, 2009-10. Royal Society Leverhulme Trust Senior Research Fellowship 2010-11.

Teaching and supervision:

I have taught courses at Edinburgh, Aarhus, Pisa, Carnegie-Mellon, Stanford and Cambridge universities and supervised PhD students at Carnegie-Mellon, Cambridge and Aarhus universities.

At Cambridge (1984-88) I led study groups for PhD students within my areas, and lectured on Theory of Computation, Formal Languages and Automata Theory, Theory of Programming Languages, Semantics of Programming Languages. The lecture notes for the last two courses, supplemented by material taught at Aarhus to undergraduate and MSc students, led to my book "The Formal Semantics of Programming Languages", MIT Press, 1993, which is used fairly widely in Europe and the U.S.A. (an Italian translation is available: UTET Libreria, 1999) and half the book has been mechanically verified.[1] At Cambridge (2000-) I've taught Denotational Semantics, Topics in Concurrency, and Discrete Mathematics, and initiated mini-courses for PhD students.

Supervision at Cambridge 1984-88: At the Computer Laboratory, University of Cambridge I supervised diploma and third year projects in the Semantics of OCCAM (1985), An interpreter and verifier for Petri nets (Roy Marriot, 1986), Verification of concurrent machines represented as Petri nets (Julian Bradfield, 1987).

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[1] Tobias Nipkow: Winskel is (almost) Right: Towards a Mechanized Semantics Textbook. Formal Aspects of Computing 10(2): 171-186 (1998)

PhD students at Cambridge 1984-88:

[C1] Jonathon Billington: Coloured Petri Nets.

[C2] Guo-Qiang Zhang: Logic of Domains Later published as a book by Birkhäuser in the Progress in Theor. Comp. Sc. series, 1991.

[C3] Juanito Camilleri: Priority in Process Calculi.

Supervision at Aarhus 1988-2000::

[A1] Sten Agerholm and Henrik Skjødt: Automating a model checker for recursive modal asssertions in HOL. Student project, DAIMI IR-92, 1990.

[A2] Sten Agerholm: Program refinement in HOL. MSc thesis, 1992.

[A3] Ann-Grete Tan, Anders Pilegaard and Peter Strarup Jensen: Defining mutually recursive types in HOL. Student project, DAIMI IR-99, 1990

[A4] Ann-Grete Tan, Anders Pilegaard: Programming with proofs. MSc thesis, 1991.

[A5] Brian Andersen and Carsten Rickers: A low level circuit model in HOL. Student project, 1990.

[A6] Michael Pedersen, Jens Bæk Jørgensen and Rikke Drewsen Andersen. Literal resolution in the propositional calculus using the HOL theorem prover. Student project, 1990.

[A7] Poul Christensen and Hans Jacob Pedersen: Automating mutually recursive type definition in HOL. Student project, DAIMI IR-94, 1990

[A8] Poul Christensen and Hans Jacob Pedersen: A reformulation of Lamport's Temporal Logic of Actions. MSc thesis, 1993.

[A9] Ole I. Hougaard. Computability in HOL—a model for computation in formal logic. MSc thesis, 1993.

[A10] Urban Engberg: Analyzing authentication protocols. Student project, DAIMI IR-97, 1990.

[A11] Claus Torp Jensen: The concurrency workbench with priority. Student project, 1992.

[A12] Bettina Blaaberg Sørensen and Christian Clausen: Adequacy results for a lazy functional language with recursive and polymorphic types. Student project, 1992. Published in Theor. Comp. Sc., 1994.

[A13] Henrik Enstrøm: A model of polymorphism in the effective topos. MSc thesis, 1997.

 PhD Students at Aarhus 1988-2000:

[A14] Henrik Reif Andersen: Verification of temporal properties of concurrent systems. PhD thesis, June 1993.

[A15] Sten Agerholm: Domain Theory in HOL. PhD thesis, June 1994.

[A16] Claus Torp Jensen: Prioritized and independent actions in distributed computer systems. PhD thesis, August 1994.

[A17] Urban Engberg: Reasoning in the Temporal Logic of Actions, the design and implementation of an interactive computer system. PhD thesis, August 1996.

[A18] Torben Braüner: An Axiomatic Approach to Adequacy. PhD thesis, November 1996.

[A19] Gian Luca Cattani: Presheaf Models for Concurrency. PhD thesis, May 1999.

[A20] Thomas Troels Hildebrandt: Categories of models for concurrency—independence, fairness and dataflow. PhD thesis, 2000.

 PhD Students at Aarhus and Cambridge (2000–):

[A21] Mikkel Nygaard: Domain Theory for Concurrency. PhD thesis, July 2003.

[A22] Mario Jose Caccamo: A Formal Calculus for Categories. PhD thesis, June 2003.

[A23] Federico Crazzolara: Language, Semantics, and Methods for Security Protocols. PhD thesis, May 2003.

[A24] Daniele Varacca: Probability, Nondeterminism and Concurrency two denotational models for probabilistic computation. PhD thesis, November 2003.

[A25] Lucy Saunders-Evans, Event Structures with Persistence. PhD thesis, 2007.

[A26] David Turner, Nominal Domain Theory. PhD thesis, 2009.

[A27] Jonathan Hayman, Petri-net semantics. PhD thesis, 2010.

Current PhD students: Christopher Thompson-Walsh; Steffen Loesch

Invitations:

I have been invited to give seminars (often several times), at Computer Science and Mathematics departments at the following universities and institutions: Oxford, Cambridge, Leeds, Birmingham, Swansea, Odense, Technical University Lyngby, Manchester, Warwick, Edinburgh, Hatfield, Surrey, Imperial College, Brunel, INRIA Paris and Sophia Antipolis, Aarhus, Aachen, Eindhoven, Copenhagen, Philips Research Laboratory Eindhoven, Pisa, Berlin, GMD Bonn, Carnegie–Mellon, SRI Palo Alto, Stanford, University of NSW Sydney Australia, University of Macquarie Sidney Australia. I have been invited to lecture at many summerschools, workshops and conferences over the years in topics ranging from concurrency, linear logic, denotational semantics, to hardware verification.

Selected invitations:

- Invited speaker, Category Theory in Computer Science, Cambridge (August 1995).

- Invited lecturer, Isaac Newton Institute Summer School on Semantics of Computation (September 1995).

- Invited participant, Isaac Newton Institute programme in Semantics of Computation (August-December 1995).

- Invited speaker, DIMACS workshop on Partial Order Methods In Verification, Princeton, (July 1996).

- Invited lecturer, CSL'96, Utrecht (September 1996).

- Invited tutorial speaker, CSL'96, Utrecht (September 1996).

- Guest speaker, 10th Anniversary of Laboratory for the Foundations of Computer Science, Edinburgh University (November 1996).

- Invited lecturer, CONCUR'97, Warsaw (July 1997).

- Invited lecturer, MFPS'97, Pittsburgh (March 1997).

- Invited lecturer, Workshop on Domains III, Munich (May 1997).

- Lecturer, School on Computational and Syntactic Methods, De Brug te Mierlo (August 1997).

- Invited speaker, HOOTS II, International Workshop on Higher Order Operational Techniques in Semantics, Stanford University, (December 1997).

- Invited Speaker, AMAST'98, Amazonas, Brazil (January 1999).

- Invited Speaker, British Colloquium in Theoretical Computer Science, Keele (April 1999).

- Invited Speaker, Workshop on Geometric and Topological Methods in Concurrency Theory, Aalborg (June 1999).

- Invited Speaker, 7th Workshop on Logic, Language, Information and Computation (WoLLIC'2000), Natal, Brazil (August 2000).

- Invited Speaker, APPSEM Workshop, Darmstadt, Germany (March 2001).

- Invited Speaker, MFPS '2000, Aarhus, Denmark (May 2001).

- Invited speaker, FICS'02 workshop. Affiliated with FLoC'02. Copenhagen, Denmark, July 2002.

- Invited speaker, Workshop on Domain Theory in Honour of Dana S. Scott on his 70'th birthday. Affiliated with FLoC'02. Copenhagen, Denmark, July 2002.

- Guest professor, Ecole Normale Supérieure, Paris, one month 2002.

- Categorical Methods in Concurrency, Interaction and Mobility (CM-CIM) 2003.

- Guest lecturer Fields Institute Summer School, Ottawa, June 2003.

- Keynote speaker at the LICS'03 workshop on Causality in Computer Science and Physics, Ottawa, June 2003.

- Guest professor, Université de Paris Nord, one month 2004.

- Invited speaker 3rd International Symposium on Domain Theory (ISDT'03), Xi'an China, May 2004.

- Invited speaker WISP'04, Bologna, June 2004.

- Invited speaker LICS'05, Chicago, June 2005.

- Invited speaker EXPRESS'05, San Francisco, August 2005.

- Invited speaker at the 60th Birthday Event in Edinburgh for Gordon Plotkin, September 2006.

- Invited speaker Logic Summer School, Canberra Australia, 2006.

- Invited speaker USMC'07 Canberra, 2007.

- Invited speaker CALCO'07 Bergen, 2007.

- Invited speaker at the 60th birthday celebration in Paris, 'Journées Jean-Yves Girard,' September 2007.

- Invited speaker at CHOCO project theme-day on Event Structures, ENS Lyon, April 2008.

- Invited speaker at 'Concurrency, Graphs and Models' A Colloquium in Honour of Ugo Montanari on his 65'th birthday, June 2008.

- Keynote speaker at the Fifth International Symposium on Domain Theory, Shanghai, September 12-14, 2009.

- Invited speaker at the 60th birthday celebration of Mogens Nielsen, Aarhus, September 2009.

- Invited speaker at IP 2009 New Orleans, 5-9 October, 2009.

- Invited speaker at SAS 2010, Perpignan, 14-16 September, 2010.

Publications:
Books:

[B1] Winskel, G., The formal semantics of programming languages, an introduction. MIT Press, January, 1993. Second edition due out 2005. An Italian translation is published by UTET Libreria, 1999. A Chinese translation is published by China Machine Press, CITIC Publishing House, 2004.

[B2] Caccamo, M., Hyland, M., and Winskel, G., Lectures on Category Theory. Draft available from http://www.brics.dk/ mcaccamo/, 2001.

[B3] Winskel, G., Set theory for Computer Science. Submitted to publishers. Draft available as lecture notes for Discrete Maths, from http://www.cl.cam.ac.uk/ gw104/, 2006+.

In addition, I served as editor of the following proceedings:

[B4] Editor (with Brookes and Roscoe) of the Proceedings of the joint US-UK Seminar on the Semantics of Concurrency, July 1984, Carnegie-Mellon University, Pittsburgh, Springer-Verlag Lecture Notes in Comp. Sc. 197, 1984.

[B5] Editor of the Proceedings of the Third HOL Users Meeting, Aarhus, October 1990. DAIMI PB 340, Aarhus University, 1990.

[B6] Editor (with Engberg and Nielsen) of the Proceedings of the CEDISYS Workshop on Models, Languages and Logics for Concurrent Distributed Systems, Aarhus, May 1991. DAIMI PB 392, Aarhus University, 1992.

[B7] Editor of the Proceedings of the CLICS Workshop–Part I & II, Aarhus, March 1992. DAIMI PB 398, Aarhus University, 1992.

[B8] Editor of the Proceedings of Logic in Computer Science '97, Warsaw July 1997, IEEE 1997.

[B9] Editor (with Kohlenbach, Riis and Butz) of the issue of "Annals of Pure and Applied Logic" devoted to the proceedings of PTAC (Proof Theory and Complexity), 1998.

[B10] Editor (with Larsen and Skyum) of proceedings of ICALP'98 (Automata, Languages and Programming) Aalborg, Denmark, July 1998.

[B11] Editor of the special issue of Information and Computation devoted to selected papers from LICS'97, Warsaw. December, 2002.

[B12] Cardelli, L., Fiore, M.P., and Winskel, G., Computation, Meaning and Logic: Articles dedicated to Gordon Plotkin, ed. Cardelli, L., Fiore, M., and Winskel, G., Electr. Notes Theor. Comput. Sci. 172: 1-4 (2007)

Articles:

[1] Winskel, G., Recursive functionals of finite type. M.Sc. dissertation, Mathematical Institute, University of Oxford, 1976.

[2] Nielsen, M., Plotkin, G., Winskel, G., Petri nets, Event structures and Domains. Proc. Conf. on the Semantics of Concurrent Computation, Evian, France, Springer–Verlag Lecture Notes in Comp. Sc. 70, 1979).

[3] Nielsen, M., Plotkin, G., Winskel, G., Petri nets, Event structures and Domains, part 1. Theoretical Computer Science, vol. 13, pp. 85-108, 1981.

[4] Winskel, G., Events in Computation. PhD thesis, University of Edinburgh, available as a Comp. Sc. report, 1980.

[5] Winskel, G., An exercise in processes with infinite pasts. Proc. of European workshop on the theory and applications of Petri nets 1981, Informatik Fachberichte 52, Springer-Verlag, 1982.

[6] Winskel, G., Event structure semantics of CCS and related languages. Springer–Verlag Lecture Notes in Comp. Sc. 140 ICALP 82, 1982.

[7] Winskel, G., Event structure semantics of CCS and related languages. Computer Science Report, University of Aarhus, 1982.

[8] Winskel, G., Synchronisation trees. In the proceedings of ICALP 83, Springer–Verlag Lecture Notes in Comp. Sc., 1983.

[9] Winskel, G., Synchronisation trees. Theoretical Computer Science, Dec. 1984.

[10] Winskel, G., A note on powerdomains and modality. In the proceedings of FCT 83, Springer–Verlag Lecture Notes in Comp. Sc., 1983.

[11] Winskel, G., On powerdomains and modality. In the May issue of Theoretical Computer Science, 1985.

[12] Winskel, G., A representation of completely distributive algebraic lattices. Report of the Computer Science Dept., Carnegie-Mellon University, 1983.

[13] Winskel, G., Nondeterministic recursive program schemes and powerdomains. Report of the Computer Science Dept., Carnegie-Mellon University, 1983.

[14] Winskel, G., Nondeterministic recursive program schemes and powerdomains. In the proceedings of the IFIP working conference, January 1985, North–Holland, 1985.

[15] Winskel, G. and Larsen, K., Using information systems to solve recursive domain equations effectively. In the proceedings of the conference on Abstract Datatypes, Sophia-Antipolis, France in June 1984, Lecture Notes in Comp Sc, 1984.

[16] Winskel, G. and Larsen, K., Using information systems to solve recursive domain equations effectively. A report of the Computer Laboratory, University of Cambridge, 1983.

[17] Winskel, G. and Larsen, K., Using information systems to solve recursive domain equations. In Information and Computation, vol.91, no.2, 1991.

[18] Winskel, G., A new definition of morphism on Petri nets. In the proceedings of STACS 84, Paris, Springer-Verlag Lecture Notes in Comp. Sc., 1984.

[19] Winskel, G., On the composition and decomposition of assertions. In the proceedings of the joint US-UK seminar on the semantics of concurrency, July 1984, Carnegie-Mellon University, Pittsburgh, Springer-Verlag Lecture Notes in Comp. Sc. 197, and appears as a report of the Computer Laboratory, University of Cambridge, 1984.

[20] Winskel, G., Categories of models for concurrency. In the proceedings of the workshop on the semantics of concurrency, Carnegie-Mellon University, Pittsburgh, Springer Lecture Notes in Computer Science 197 (July 1984), and appears as a report of the Computer Laboratory, University of Cambridge, 1984.

[21] Winskel, G., A complete proof system for SCCS with modal assertions. In the proceedings of Foundations of Software Technology, 1985. In Fundamenta Informaticae, SIX, pp.401-420, 1986.

[22] Winskel, G., Petri nets, algebras, morphisms and compositionality. Report 79 of the Computer Laboratory , University of Cambridge, 1985. In Information and Computation, vol.72, No.3, Mar.1987.

[23] Winskel, G., Petri nets, morphisms and compositionality. In "Advances in Petri Nets", Springer–Verlag Lecture Notes in Comp. Sc., 1985.

[24] Winskel, G., Category theory and models of parallel computation. A write-up of an invited lecture at the Summer Workshop on Category Theory and Computer Programming, University of Surrey, Guildford, September 1985, published in Springer Verlag Lecture notes series, 1985.

[25] Winskel, G., Lectures on models and logic of MOS circuits. Four invited lectures for the Marktoberdorf Summer School, July 1986. Published in the Springer NATO ASI Series, 1987.

[26] Winskel, G., Event structures. Invited lectures for the Advanced Course on Petri nets, September 1986. Appears as a report of the Computer Laboratory, University of Cambridge, 1986, and in the proceedings of the school, published in Springer Lecture Notes in C.S., vol.255, 1987.

[27] Coquand, T., Gunter, C., and Winskel, G., dI-domains as a model of polymorphism. Appears in the proceedings of the Third Workshop on the Mathematical Foundations of Programming Language Semantics, New Orleans, LA, Springer Lecture Notes in Computer Science, vol. 298, 1987.

[28] Coquand, T., Gunter, C., and Winskel, G., Domain theoretic models of polymorphism. In Information and Computation Vol.81, No.2, May 1989.

[29] Winskel, G., A compositional model of MOS circuits. In the book: VLSI Specification, Verification and Synthesis, G.M. Birtwistle and P.A. Subrahmanyam (eds) Kluwer Press, 1987.

[30] Winskel, G., Relating two models of hardware. In the proceedings of the conference "Category theory and computer science", Edinburgh, September 1987, Springer Lecture Notes in C.S. vol 283, 1987.

[31] Winskel, G., An introduction to event structures. In the lecture notes for the REX summerschool in temporal logic, May 88, in Springer Lecture Notes in C.S., vol.354, 1988.

[32] Winskel, G., A category of labelled nets and compositional proof system. In the proceedings of the the conference "Logic in Computer Science", Edinburgh, July 1988.

[33] Winskel, G., A note on model checking the modal ν-calculus. In the proceedings of ICALP 1989, Springer Lecture Notes in C.S., vol.372., 1989.

[34] Winskel, G., On local model checking the modal ν-calculus. In the ICALP '89, special issue of TCS, vol.83, 1991.

[35] Winskel, G., A compositional proof system on a category of labelled transition systems. Information and Computation, vol.87, 1990.

[36] Engberg, U., and Winskel, G., Petri nets as a model of linear logic. In the proceedings of CAAP '90, Copenhagen 1990, Springer Lecture Notes in Computer Science vol.431, 1990.

[37] Winskel, G., On the compositional checking of validity. In the proc of CONCUR'90, Springer Lecture Notes in Computer Science vol.458, 1990.

[38] Camilleri, J.A., and Winskel, G., CCS with priority choice. Proceedings of LICS, IEEE, 1991.

[39] Camilleri, J.A., and Winskel, G., CCS with priority choice. Information and Computation, vol. 116, no.1, January 1995.

[40] Andersen, H.R., and Winskel, G., Compositional checking of satisfaction. In the proceedings of Computer Aided Verification, Springer Lecture Notes in Computer Science, 1991.

[41] Andersen, H.R., and Winskel, G., Compositional checking of satisfaction. In the journal Formal Methods In System Design, 1 pp.323-354, 1992.

[42] Winskel, G. and Nielsen, M., Models for concurrency. A chapter in vol.IV of the Handbook of Logic and the Foundations of Computer Science, Oxford University Press, 1995.

[43] Sassone, V., Nielsen, M., and Winskel, G., A classification of models for concurrency. In the proceedings of CONCUR 93, Amsterdam, Lecture Notes in Computer Science, 1993.

[44] Sassone, V., Nielsen, M., and Winskel, G., Deterministic behavioural models for concurrency. In proceedings of MFCS 93, Poland, Lecture Notes in Computer Science, 1993.

[45] Nielsen, M., and Winskel, G., Trace structures and other models for concurrency. Invited chapter for the "Trace Book", editors Diekert, V., and Rozenberg, G. , 1995.

[46] Engberg,U., and Winskel, G., Completeness results for linear logic on Petri nets. Extended abstract, in proceedings of MFCS 93, Poland, Lecture Notes in Computer Science, 1993.

[47] Engberg,U., and Winskel, G., Completeness results for linear logic on Petri nets. Full version of above in Annals of Pure and Applied Logic 86, 1997. Also available as DAIMI PB 435, April 1993.

[48] Joyal, A., Nielsen, M., and Winskel, G., Bisimulation and open maps. In LICS'93 proceedings, IEEE, 1993.

[49] Winskel, G., Semantics, Algorithmics and Logic. BRICS Inaugural talk, February, 1994. BRICS Report Series RS-94-1, 1994.

[50] Joyal, A., Nielsen, M., and Winskel, G., Bisimulation from open maps. Report Series RS-94-7, BRICS, University of Aarhus, Denmark, May 1994. Appears in the LICS'93 special issue of Information and Computation, vol. 127, no.2, 1996.

[51] Nielsen, M., and Winskel, G., Petri Nets and Bisimulations, BRICS report RS-95-4, 1995. Theoretical Computer Science 153, 1996.

[52] Plotkin, G.D., and Winskel, G., Bistructures, bidomains and linear logic. Proceedings of ICALP'94, Jerusalem, 1994.

[53] Winskel, G., Stable bistructure models of PCF. Invited lecture MFCS '94, Slovakia, appears in proceeding of MFCS '94, Springer Lecture Notes in Computer Science, 1994.

[54] Andersen, H.R., Stirling, C., and Winskel, G., A Compositional Proof System for the Modal μ-Calculus. In IEEE Proceedings of LICS 94, Paris, 1994. Journal version, submitted for publication, available as BRICS Report 98-40, 1998.

[55] Sassone, V., Nielsen, M., and Winskel, G., Relationships between models for concurrency. In proceedings of REX, a decade of concurrency, 1993, Springer Lecture Notes in Computer Science vol.803, 1994

[56] Engberg, U., and Winskel, G., Linear logic on Petri nets. In proceedings of REX, a decade of concurrency, 1993, Springer Lecture Notes in Computer Science vol.803, 1994

[57] Sassone, V., Nielsen, M., and Winskel, G., Models for Concurrency: Towards a Classification. Theor. Comput. Sci. 170(1-2): 297-348, 1996.

[58] Camilleri, J., and Winskel, G.,CCS with priority choice. Information and Computation, 1995.

[59] Winskel, G., A presheaf semantics of value-passing processes. In the proc. of CONCUR'96, Pisa, Springer Lecture Notes in Computer Science, August 1996.

[60] Cattani, G.-L., and Winskel, G., Presheaf models for concurrency. In the proc. of CSL'96, Utrecht, August 1996, Springer Lecture Notes in Computer Science, 1997.

[61] Curien, P.-L., Plotkin, G., and Winskel, G., Bistructures, bidomains and linear logic. In the festschrift celebrating Robin Milner's 60'th birthday, MIT Press, 1996.

[62] Winskel, G., and Nielsen, M., Categories in Concurrency. A chapter in Semantics and Logics of Computation, Isaac Newton Institute, Cambridge University series (ed. A.M.Pitts), CUP, 1996.

[63] Nielsen, M., and Winskel, G., Presheaves as transition systems. In the proc. of DIMACS Workshop on Partial Order Methods In Verification, Princeton, July 1996,DIMACS Series in Discrete Mathematiocs and Theoretical Computer Science, 29, American Mathematical Society, 1997.

[64] Cattani, G.-L., Stark, I., and Winskel, G., A presheaf model for the Pi-calculus. In the proc. of Category Theory in Computer Science 1997, Genova, Springer Lecture Notes in Computer Science, 1997.

[65] Cattani, G.L., Fiore,M. and Winskel, G., A Theory of Recursive Domains with Applications to Concurrency. In proc of LICS'98, Indiana, 1998.

[66] Hildebrandt, T., Panangaden, P. and Winskel, G., Relational semantics of nondeterministic dataflow. In proc.of CONCUR'98, Springer Lecture Notes in CS, Nice, 1998.

[67] Cattani, G.L., Power, J., and Winskel, G., A categorical axiomatics for bisimulation. In proc.of CONCUR'98, Springer Lecture Notes in CS, Nice, 1998. Extended version submitted to Theoretical Computer Science CONCUR'98 special issue.

[68] Cattani, G.L., Power, J., and Winskel, G., A representation result for free cocompletions. In Journal of Pure and Applied Algebra 151 pp.273-286, 2000.

[69] Winskel, G., A linear metalanguage for concurrency. Invited lecture in proc. AMAST'98, Brazil, Springer Lecture Notes in CS, vol. 1548, 1999.

[70] Cattani, G.L., Fiore, M. and Winskel, G., Weak bisimulation and open maps. In proc. LICS'99, Trento, 1999.

[71] Winskel, G., Event structures as presheaves—Two representation theorems. In proc. CONCUR'99, Eindhoven, Springer Lecture Notes in CS, 1999.

[72] Cattani, G.-L., and Winskel, G., Presheaf models for concurrency. Theoretical Computer Science 300(1-3): 47-89, 2003.

[73] Crazzolara, F., and Winskel, G., Petri nets in cryptographic protocols. 6th International Workshop on Formal Methods for Parallel Programming: Theory and Applications. In conjunction with the 15th International Parallel & Distributed Processing Symposium (IPDPS'2001), San Francisco, 2001.

[74] Caccamo, M., and Winskel, G., A higher-order calculus for categories. In proc. TPHOLs 2001, Edinburgh, September 3-6, Springer Lecture Notes in CS, 2001.

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[75] Crazzolara, F., and Winskel, G., Events in security protocols. In proc. the 8th ACM Conference on Computer and Communication Security, Philadelphia, November, 2001. Awarded the British Computer Society Brendan Murphy Memorial Award 2002.

[76] Nygaard, M., and Winskel, G., HOPLA—A Higher-Order Process Language. In proc. CONCUR'02. Springer Lecture Notes in CS, 2002.

[77] Nygaard, M., and Winskel, G., Linearity in Process Languages. In proc. LICS'02, 2002.

[78] Winskel, G., Linearity and nonlinearity in distributed computation. An invited chapter in "Linear Logic in Computer Science", London Mathematical Society Lecture Notes Series, CUP, 2004.

[79] Crazzolara, F., and Winskel, G., Composing Strand Spaces. In proc. FSTTCS'02. Springer Lecture Notes in CS, 2002.

[80] Hildebrandt, T., Panangaden, P., and Winskel, G., A relational model of nondeterministic dataflow. In Mathematical Structures in Computer Science, 14: 613-649 Cambridge University Press, 2005.

[81] Nygaard, M., and Winskel, G., Full abstraction for HOPLA. In proc. CONCUR'03. Springer Lecture Notes in CS, 2003.

[82] Nygaard, M., and Winskel, G., Domain theory for concurrency. Theoretical Computer Science special edition on the occasion of Dana Scott's 70th birthday, Theoretical Computer Science, Volume 316, Issues 1-3, pp. 153-190, 2004.

[83] Nielsen, M., and Winskel, G., Datalogisk grundforskning og informationsteknologi. Chapter in "Topforskning ved Aarhus Universitet—en jubilæmsantologi" (a book celebrating the 75th anniversary of Aarhus University), Aarhus Universitetsforlag, 2003.

[84] Winskel, G., and Zappa Nardelli,F., New-HOPLA: a higher order process language with name generation. Proc. of TCS2004, Third IFIP International Conference on Theoretical Computer Science, 2004.

[85] Varacca, D., Völzer, H., and Winskel, G., Probabilistic event structures and domains. In proc. CONCUR'04, Springer Lecture Notes in Computer Science, 2004. Full version accepted for a CONCUR'04 special issue of Theoretical Computer Science, 2005.

[86] Caccamo, M., and Winskel, G., Limit preservation from naturality. CTCS'04, Electr. Notes Theor. Comput. Sci. 122: 3-22, 2005.

[87] Crazzolara,F., and Winskel, G., Petri Nets With Persistence. Electr. Notes Theor. Comput. Sci. 121: 143-155, 2005.

[88] Cattani, G.L., and Winskel, G., Profunctors, open maps and bisimulation. Mathematical Structures in Computer Science (2005), 15: 553-614 CUP, 2005.

[89] Winskel, G., Name generation and linearity. Proceedings LICS'05, 2005.

[90] Winskel, G., Relations in concurrency. Invited talk, Proceedings LICS'05, 2005.

[91] Varacca, D., and Winskel, G., Distributing probability over non-determinism. Mathematical Structures in Computer Science 16, pp.87-113, 2006.

[92] Hayman, J., and Winskel, G., Independence and concurrent separation logic. Proceedings LICS'06, 2006.

[93] Saunders-Evans, L., and Winskel, G., Event structure spans for non-deterministic dataflow. Proceedings of EXPRESS'06. Electronic Notes in Theoretical Computer Science, 175(3): 109-129, 2007.

[94] Winskel G., Event structures with symmetry. In the Festschrift for Gordon Plotkin Electronic Notes in Theoretical Computer Science, 172:611-652, 2007.

[95] Cardelli, L., Fiore, M.P.,and Winskel, G., Preface. Electr. Notes Theor. Comput. Sci. 172: 1-4, 2007.

[96] Winskel G., Symmetry in Concurrency. Invited talk, Proceedings CALCO'07, Springer Lecture Notes in CS 4624: 40-64, 2007.

[97] Fiore, M., Gambino, N., Hyland, M., and Winskel G., The cartesian closed bicategory of generalised species of structures. Journal of the London Mathematical Society, 77 2, 203-220, 2007.

[98] Boudol, G., Castellani, I., Hennessy, M., Nielsen, M., and Winskel, G., Twenty Years on: Reflections on the CEDISYS Project. Combining True Concurrency with Process Algebra. Concurrency,

Graphs and Models, Springer Lecture Notes in Computer Science 5065, 2008.

[99] Hayman, J., and Winskel, G., Independence and Concurrent Separation Logic. LICS 2006 Special issue of Logical Merthods in Computer Science, Vol.4 (1:6) pp 1-68, 2008.

[100] Winskel, G., Events, Causality and Symmetry. An earlier version with the same title appears in the BCS conference 'Visions in Computer Science.' September 2008, BCS Int. Acad. Conf. 2008: 111-127. The final version appears in a special issue of The Computer Journal; doi: 10.1093/comjnl/bxp052 (2009).

[101] Hayman, J., and Winskel, G., The unfolding of general Petri nets. FSTTCS'08, 2008.

[102] Hayman, J., and Winskel, G., Symmetry in Petri nets. In Perspectives in Concurrency Theory, K. Lodaya, M. Mukund and R. Ramanujam (eds) Universities Press (2008).

[103] Turner, D., and Winskel, G., Nominal Domain Theory for Concurrency. In proc. Computer Science Logic: 546-560, Lecture Notes in Computer Science 5771 Springer (2009).

[104] Winskel, G., Prime Algebraicity. A paper for the Mogens Nielsen Festschrift, September 2009. Theoretical Computer Science, 410(41): 4160-4168 (2009).

[105] Staton, S., and Winskel, G., On the expressivity of symmetry in event structures. Proceedings LICS 2010.

Papers submitted or in draft form:

[106] Joyal, A., and Winskel, G., On open maps.

[107] Winskel, G., Denotational semantics for the ambient calculus.

[108] Cattani, G.-L., Stark, I., and Winskel, G., A presheaf model for the Pi-calculus. Journal version.

[109] Winskel, G., and Zappa Nardelli,F., New-HOPLA: a higher order process language with name generation. Journal version submitted Information and Computation.

[110] Fiore, M., Gambino, N., Hyland, M., and Winskel G., Distributive laws for Kleisli structures.

[111] Winskel, G., The symmetry of stability.