Curriculum Vitae of Willem-Paul de Roever

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Personalia

Name:	Willem-Paul de Roever.
Born:	21st June 1943 at Amsterdam (The Netherlands).
Nationality:	Dutch.
Civil status:	Married to Corinne Spronk, father of three children, Just (born 4.4.1967), Sanne (born 26.10.1970), and Jojanneke (born 2.7.1982).

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Education

- Amersfoorts Lyceum, Amersfoort, The Netherlands, gymnasium, completed in June 1961.

- From 1961 to 1962, Mathematics at University of Texas, Austin (Texas) as Fulbright scholar.

- From 1962 to 1970, Applied mathematics at Universiteit van Amsterdam, Amsterdam, The Netherlands. Graduation (cum laude) on March 1970.

- Doctorate in Mathematics and Computer Science at the Free University, Amsterdam, on January 1975. Ph.D. thesis entitled "Recursive Program Schemes: semantics and proof theory" supervised by Prof. dr. J.W. de Bakker.

Employment

- From 1990 full professor (C4) in Software Technology at Christian-Albrechts-University of Kiel, Germany.

- From 1985 to 1990 external advisor at Philips Research Labs., Eindhoven, The Netherlands. Mainly involved in assisting staff in developing and applying formal methods for object–oriented programming and high level specification.

- From 1985 to 1990 full professor in Theoretical Computer Science at Eindhoven University of Technology, The Netherlands.

- From 1983 to 1985 part-time professor (extraordinarius) in Theoretical Computer Science at Nijmegen University, The Netherlands.

- From 1978 to 1985 senior lecturer at the Rijksuniversiteit Utrecht, The Netherlands.

- From 1977 to 1978 visiting associate professor at University of California at Berkeley, USA.

- In 1977 senior research fellow at Queen's University, Belfast, Ireland.

- From 1976 to 1977 maître de conférence at University of Rennes (CRNS), France.

- From 1973 to 1978 first class research fellow at the Mathematisch Centrum in Amsterdam, The Netherlands.

- From 1970 to 1973 assistant professor at the Vrije Universiteit, Amsterdam The Netherlands.

- From 1970 to 1973 research fellow at the Mathematisch Centrum in Amsterdam, The Netherlands.

- From 1968 to 1970 research assistant at the Mathematisch Centrum in Amsterdam, The Netherlands.

- From 1966 to 1967 candidate assistant at University of Amsterdam in Amsterdam, The Netherlands.

- From 1964 to 1965 student assistant at University of Amsterdam in Amsterdam, The Netherlands.

Scholarships, honours, and grants

- From 1961 to 1962 Fulbright scholarship at the University of Texas, Austin, Texas.

- Grants of the Dutch governmental research agencies ZWO in 1975, SION from 1980 to 1988, and STW from 1989 to 1993.

- Grant of French governmental research agency CNRS in 1976.

- Grant of British governmental research agency SRC in 1977.

- Grant of the American governmental research agency NSF from 1978 to 1980.

- Grants from the German research agency DFG from 1995 onwards.

Other points

- Invited lecturer at various schools and workshops, such as the Program Transformation Workshop at Harvard (1979), Oberwolfach in Germany (1979/81), Bad Honnef, in Germany, (1977/79/81/83/85), School on Petri nets and Concurrency in Normandy, France, (1980), School on Foundations of Software Technology and Distributed Systems in Bangalore, India, (1982), Advanced Course on "Logics and Models for Verification and Specification of Concurrent Systems" in France, (1984), Colloquium on Temporal Logic and Specification in Manchester, invited lecturer at the second Symposium on Formal Methods for Components and Objects, FMCO 2003, at the UNSW (Sydney) in 2003, and at ESSLI 2004.

- Member of IFIP Working Group 2.2.

- Organizer (together with J.W. de Bakker and G. Rozenberg) of a nationwide concurrency project, financed by the Dutch Government, in the periods 1984–88 (LPC) and 1988–93 (REX).

- Organizer (together with J.W. de Bakker and G. Rozenberg) of the REX schools (see editor references 1–7).

- Program committee member and/or (co)organizer of several international conferences and symposia such as ICALP 1987; PARLE 1987; Distributed Computing Systems, 1987; Comp Euro 1988; Symposium on Formal Techniques in Real–Time and Fault Tolerance Systems 1988, 1991, 1994, 1996, 1998, 2000, 2002; PROCOMET'98; FMCO 2002, 2003; and FORMATS AND FTRTFT 2004; and of many others.

- (Co)organizer of 11 franco-german "Synchronous Language" series of workshops, at Schloß Dagstuhl (4×), Marseille (2×), Roscoff (France), Gandia (Spain), Saint Nazaire (France), Hyères (Côte d'Azure), La Londes-des-Maures (Côte d'Azure).

- Organizer of many other workshops on Formal Methods, notably at Schloß Dagstuhl, Germany, on Stable Algorithms (2×).

- Project partner in research projects of the European Community:

  - ESPRIT Project no. 937 DESCARTES: Debugging and Specification of ADA Real-Time Embedded Systems (1986–1989),
  - ESPRIT Project no. 3096 SPEC: Formal Methods and Tools for the Development of Distributed and Real-Time Systems (1989–1992, as coordinator),
  - ESPRIT Project no. 6021 REACT: Building Correct Reactive Systems (1992–1995),
  - ESPRIT Project no. 23498 VIRES: Design and Verification of Industrially Relevant Systems) (1996–2000),
  - ESPRIT Project no. 26270 VHS: Verification of Hybrid Systems (1998–2001),
  - ESPRIT Project no. 33522 OMEGA: Correct Development of Real-Time Embedded Systems in UML (2002–2004),

- – EU-Project no. 33826 CREDO: Modeling and analysis of evolutionary structures for distributed services (2006–2009),

all on the verification and development of concurrent, real-time and/or hybrid embedded systems and their associated tools.

In DESCARTES this concerned ADA and Statecharts, in SPEC for the first time this full range of topics was tackled, VIRES on model checking and deductive verification for mobile telephone protocols, VHS on hybrid systems, and OMEGA in the context of formalizing UML.

Recurring partners in these and other projects are Amir Pnueli and David Harel (Weizmann Institute of Science), Joseph Sifakis (Institut Vérimag, Grenoble), Pierre Wolper (Université de Liège), Werner Damm (OFFIS, Oldenburg), Costas Courcoubetis (Heraklion, Crete), Frank de Boer and others (CWI, Amsterdam), Frits Vaandrager and Jozef Hooman (University of Nijmegen), Bengt Jonsson (Uppsala), and Sebastian Engell (University of Dortmund). These projects have contributed substantially to establishing a critical mass in the area of verification tools within Europe.

- Project partner in a bilateral Dutch–German research project together with the CWI, Amsterdam, and LIACS, Leiden:

  - – Mobi-J: Assertional Methods for Mobile Asynchronous Channels in Java (2001–2004)
  - – Mobi-J II: Formal Methods for Components and Objects (2005-2009)

- Project partner in DFG projects:

  - – Anwendbare formale Methoden für reaktive und Echtzeitsysteme (Az. RO 1122/1-1, RO 1122/1-2)
  - – Spezifikation und Verifikation von Steuerungen für kontinuierliche Systeme auf der Grundlage modularer Modelle und kompositioneller Analyse (Az. RO 1122/2-1, RO 1122/2-2, SPP 322 1016)
  - – Integrierte algorithmische und deduktive Verifikation verteilter Steuerungssysteme für hybride Prozesse (Az. LA 1012/5-1, LA 1012/7-1, SPP 322 1016)
  - – Formale Analyse von *Sequential Function Charts* durch Transformation in *Hierarchische Automaten* (Az. LA 1012/6-1, SPP 322 1064)
  - – KONDISK: Analyse und Synthese kontinuierlich-diskreter technischer Systeme(Az. RO 1122/7-1)
  - – Formale Analyse von Sequential Function Charts (RO 1122/10-2 SPP)
  - – Refism: Extending Statecharts by Under- and Over-Approximation Mechanisms for Top-Down Depelopment Support (together with Dr. Harald Fecher, Az. FE 942/1-1)

- Supervision of 23 Ph.D. theses, namely those of Ruurd Kuiper (Eindhoven University of Technology), Ron Koymans (Philips Semiconductors, Eindhoven), Rob Gerth (Intel Research, Strategic CAD Lab, Portland),

Cees Huizing (Eindhoven University of Technology), Job Zwiers (University of Twente), Jozef Hooman (University of Nijmegen; Embedded Systems Laboratory, Eindhoven University of Technology), Henk Schepers (Philips Research Laboratories, Eindhoven), Ping Zhou (Rijswijk, The Netherlands), Frank Stomp (Wayne State University, Detroit), Jos Coenen (deceased), Antonio Cau (De Montfort University, Leicester), Yassine Lakhnech (Université Josef Fourier, Grenoble; Laboratoire Vérimag, Grenoble), Michael Siegel (Infineon, Munich), Kai Engelhardt (University of New South Wales, Sydney), Erich Mikk (Siemens Research, Erlangen), Carsta Petersohn (Landeszentralbank Kiel), and Ulrich Hannemann (University of Bremen). Joint supervision (together with Prof. Yassine Lakhnech) of Kai Baukus (BMW, München), Ralf Huuck (University of New South Wales, Sydney) and Karsten Stahl (intersoft, Hamburg. Ben Lukoschus (Verified Systems International, Bremen), Erika Ábrahám (RWTH Aachen), Marcel Kyas (University of Oslo).

- Supervision of 3 habilitations, namely those of Jan Peleska (Bremen), Yassine Lakhnech (Vérimag, Grenoble) and of Martin Steffen (University of Oslo).

- Reviewer for the EEC-Commission of ESPRIT project "SACRES".

- Reviewer for the Deutsche Forschungsgemeinschaft (DFG).

- Special Issue Editor of Information and Computation 163, 2001.

- Initiator, together with Pierre Wolper, of the nomination of Amir Pnueli for the Turing Award; referee for David Harel's and Leslie Lamport's nomination for the Turing Award.

List of publications

Textbooks

1. W.-P. de Roever and Kai Engelhardt *"Data Refinement: Model-oriented Proof Theories and their Comparison"*, Cambridge University Press, 423 pp., 1998.

2. W.-P. de Roever, Frank de Boer, Ulrich Hannemann, Jozef Hooman, Yassine Lakhnech, Mannes Poel, and Job Zwiers *"Concurrency Verification: Introduction to Compositional and Noncompositional Methods"*, Cambridge Tracts in Theoretical Computer Science 54, Cambridge University Press, 800 pp., November 2001.

Refereed publications

1. W.-P. de Roever and J.W. de Bakker, *A calculus for recursive program schemes* in Proc. IRIA symposium on 'Automata, Languages and Programming', Nivat (ed.), North Holland, Amsterdam, 1972.

2. W.-P. de Roever, *A formalization of various parameter mechanisms as products of relations within a calculus of recursive program schemes* in Séminaires IRIA, théorie des algorithmes etc. 1972.

3. W.-P. de Roever, *Semantics for recursive polyadic program schemata*, in Proceedings of 'Mathematical Foundations of Computer Science 1973'; reprinted as report IW 6, 1973, Mathematisch Centrum.

4. W.-P. de Roever, *A Correctness Proof of the Schorr–Waite marking algorithm for binary trees*, Mathematical Centre Syllabus 21, 1975.

5. W.-P. de Roever, *Recursion and parameter mechanisms: an axiomatic approach* in Proceedings of Automata, Languages and Programming, 2nd colloquium, University of Saarbrücken, J. Loeckx (ed.), Lecture Notes in Computer Science no. 14, Springer-Verlag, Berlin, 1974.

6. W.-P. de Roever, *Call–by–name versus call–by–value: a proof–theoretic comparison* in Proceedings of 'Mathematical Foundations of Computer Science 1974', Lecture Notes in Computer Science 28, Springer-Verlag, 1974.

7. W.-P. de Roever, *Correctness proofs for search and marking algorithms of dyadic data structures* in Mathematical Centre Syllabus 25, Colloquium Structuur van Programmeertalen, 1976.

8. W.-P. de Roever, *Recursive program schemes: semantics and proof theory*, dissertation, Mathematisch Centrum, 1974. Also published as Mathematical Centre Tract 70, as a revised edition.

9. W.-P. de Roever, *First–order reduction of call–by–name to call–by–value* in Mathematical and Foundations of Computer Science 1975, Lecture Notes in Computer Science no. 32, Springer-Verlag, 1975.

10. W.-P. de Roever, *Dijkstra's predicate transformer, non–determinism, recursion and termination* in Proceedings of Mathematical Foundations of Computer Science 1976, Lecture Notes in Computer Science no. 45, Springer-Verlag, 1976.

11. W.-P. de Roever, N. Francez, and C.A.R. Hoare, *Semantics of non–determinism, concurrency and communication* in Proc. of the 7th Symposium on 'Mathematical Foundations of Computer Science 1978', J. Winkowski (ed.), LNCS 64, Springer-Verlag, 1978.

12. W.-P. de Roever, *On backtracking and greatest fixedpoints*, in Automata, Languages and Programming, 4th colloquium, Saloma (ed.), Lecture Notes in Computer Science no. 52, Springer-Verlag, 1977.

13. W.-P. de Roever, N. Francez, C.A.R. Hoare, and D. Lehmann, *Semantics of non–determinism, concurrency, and communication*, JCSS December 1979, pp. 290–308.

14. W.-P. de Roever, K.R. Apt and N. Francez, *A proof system for communicating sequential processes, TOPLAS*, July 1980, pp. 359–385.

15. W.-P. de Roever, S. Lee and S. Gerhart, *The evolution of list copying algorithms or the need for structured program verification*, proc. of the 6th Annual Symposium on the Principles of Programming Languages, San Antonio, Texas, 1979.

16. W.-P. de Roever, M. Roncken, and R. Gerth, *A proof system for Brinch Hansens's Distributed Processes*, (extended abstract), in Proc. GI '81, München, Informatik–Fachberichte, Springer-Verlag, 1981.

17. W.-P. de Roever, O. Grümberg, N. Francez, and J. Makowski, *A proof rule for fair termination* in Proc. of Symposium on Algorithmic Languages, de Bakker & van Vliet (eds.), North–Holland, 1982; in revised form *Information and Control* 66, no 1/2, 1985, 83–102.

18. W.-P. de Roever, Logics of Programs, Dexter Kozen (ed.), LNCS 131, Springer-Verlag, 1982.

19. W.-P. de Roever and R. Kuiper, *Fairness assumptions for CSP in a temporal logic framework* in Proceedings of Formal Description of Programming Concepts II, Dines Bjorner (ed.), North–Holland, 1982.

20. W.-P. de Roever, R. Gerth, and M. Roncken, *Procedures and Concurrency: a proof theoretical study* in Proceedings of International Symposium on Programming, 5th colloquium, Dezani–Cianaglini & Montari (eds.), LNCS 137, Springer-Verlag, 1982.

21. W.-P. de Roever, and A. Pnueli, *Rendez–vous with ADA – a proof theoretic view* in Proceedings of ADA – TEX '82 Conference on ADA, October 1982, D. Loveman (ed.).

22. W.-P. de Roever, R. Gerth, and M. Roncken, *A study in distributed systems and Dutch patriotism*, in Proceedings of 2nd Conference on Foundations of Software Technology and Distributed Systems, December 1982.

23. W.-P. de Roever, J. Zwiers, and A. de Bruin, *A sound axiom system for Dynamic process Creation*, in Proceedings of the 2nd Workshop on Logics of Programming, E. Clarke and D. Kozen (eds.), June 6008, Pittsburgh, 1983, LNCS 164, Springer-Verlag.

24. W.-P. de Roever and R. Gerth, *A proof system for concurrent ADA programs, Science of Programming 4*, 1984, 159–204.

25. W.-P. de Roever, R. Koymans, and J. Vytopil, *A formal system for a telecommunication language: a case study in proofs about real–time programming and asynchronous message passing*, in Proceedings of 2nd Conference on Principles of Distributed Computing, August 17–19, 1983, Montreal.

26. W.-P. de Roever, *The quest for compositionality – a survey of assertion–based proof systems for concurrent programs, part I: Concurrency based on shared variables* in Proc. of the IFIP Working Conference "The rôle of abstract models in computer science", E.J. Neuhold (ed.), North–Holland, 1985.

27. W.-P. de Roever, R. Koymans, R.K. Shyamasundar, R. Gerth and A. Arun–Kumar, *Compositional Semantics for real–time distributed computing* in Proceedings of Logics of Programs, R. Parikh (ed.), LNCS 193, Springer-Verlag, 1985.

28. W.-P. de Roever and J. Hooman, *The quest goes on: a survey of proof systems for partial correctness of CSP* in Current Trends in Concurrency, J.W. de Bakker, W.–P. de Roever, G. Rozenberg (eds.), LNCS 224, Springer-Verlag, 1985.

29. W.-P. de Roever, J. Zwiers, and P. van Emde Boas, *Compositionality and concurrent networks: soundness and completeness of a proof system* in Proc. of 12th colloquium on Automata, Languages and Programming, W. Brauer (ed.), LNCS 194, Springer-Verlag, 1985.

30. W.-P. de Roever, *The cooperation test: a syntax–directed verification method* in Logics and Models of Concurrent Systems, K.R. Apt (ed.), Nato ASI Series, Series F, Vol. 13, Springer-Verlag, 1985.

31. W.-P. de Roever and R. Koymans *Examples of a real–time temporal logic specification* in proc. of the SERC/STL workshop "The analysis of concurrent systems", T. Denvir et al. (eds.), LNCS 207, Springer-Verlag, 1985.

32. W.-P. de Roever, and N.W.P. van Diepen, *Program derivation through transformations: the evolution of list–copying algorithms, Science of Computer Programming 6*, 1986, 213–272.

33. W.-P. de Roever, *Questions to Robin Milner – A responder's commentary*, in Proc. of IFIP 1986, North–Holland, 1986.

34. W.-P. de Roever and R.T. Gerth, *Proving monitors revisited: a first step towards verifying object oriented systems*, Fundamenta Informaticae IX, 371–400, 1986.

35. W.-P. de Roever, C. Huizing, and R. Gerth, *Full abstraction of a real–time denotational semantics for an OCCAM–like language*, in Proc. of 14th annual symposium on Principles of Programming Languages, Munich, West Germany, 1987.

36. W.-P. de Roever, F.A. Stomp, and R.T. Gerth, *The μ–calculus as an assertion language for fairness argument*, Information and Computer, vol. 82, no. 3, 1989.

37. W.-P. de Roever and F. Stomp, *A correctness proof of a distributed minimum–weight spanning tree algorithm* in Proceedings of the 7th international conference on Distributed Computing Systems, West Berlin, K. Kane and G. Le Lann (eds.), 1987.

38. W.-P. de Roever, K. Huizing and R. Gerth, *Modelling Statecharts behaviour in a fully abstract way* in CAAP '88, LNCS 299, Springer-Verlag, 1988.

39. W.-P. de Roever, R. Koymans, R.K. Shyamasundar, R. Gerth and A. Arun–Kumar, *Compositional Semantics for real–time distributed computing*, Information and Computation, 79(3):210-256, December 1988.

40. W.-P. de Roever and F. Stomp, *Designing distributed algorithms by means of sequentially phased reasoning* in Distributed Algorithms, 3rd Intern. Workshop, Nice, 1989, LNCS 392, Springer-Verlag, 1989.

41. W.-P. de Roever and J. Zwiers *Compositionality and Modularity in Process Specification and Design: A State based approach* in Proceedings of a Colloquium on Temporal Logic and Specification, 8th – 10th April 1987, H. Barringer and B. Baniegbal (eds.), LNCS 398, Springer-Verlag, 1989.

42. W.-P. de Roever and J. Hooman, *Design and verification in real-time distributed computing: an introduction to compositional methods*, Protocol Specification, Testing and Verification, IX, pp. 37-56, North-Holland, 1990.

43. W.-P. de Roever and J. Zwiers *Predicates are predicate transformers: a unified compositional theory for concurrency* in Proc. 8th ACM Symposium PoDC, ACM, 1989.

44. W.-P. de Roever, H. Barringer, C. Courcoubetis, D. Gabbay, R. Gerth, B. Jonsson, A. Pnueli, M. Reed, J. Sifakis, J. Vytopil, and P. Wolper, *ESPRIT - Basic Research Action 3096 "SPEC": Formal Methods and Tools for the Development of Distributed and Real-Time Systems*, Bulletin of the EATCS, no. 40, February 1990.

45. W.-P. de Roever, J. Hooman, and S. Ramesh, *A compositional Axiomatization of Safety and Liveness Properties for Statecharts*, Proc. Semantics for Concurrency, Leicester 1990, Kwiatkowska, Shields, Thomas (eds.), Workshops in Computing, Springer-Verlag, 1990.

46. W.-P. de Roever, C. Huizing, *Introduction to the Design Choices in the Semantics of Statecharts*, Information Processing Letters 37, pp. 205-213, 1991.

47. W.-P. de Roever, *Foundations of Computer Science: Leaving the Ivory Tower*, Bulletin of the EATCS, no. 44, 1991.

48. W.-P. de Roever, J. Coenen, and J. Zwiers, *Assertional Data Reification Proofs: Survey and Perspective*, Proc. 4th Refinement Workshop, J.M. Morris & R.C. Shaw (eds.), Workshop in Computing, Springer-Verlag, 1991.

49. W.-P. de Roever and J. Hooman, *An introduction to compositional methods for concurrency and their application to real-time* in Proc. of Formale Beschreibungstechniken für verteilte Systeme, 1991, D. Hogrefe (ed.), Springer Fachberichte; also in Proceedings in Engineering Sciences of the Indian Academy of Sciences, vol. 17, part I, pp. 29-74, March 1992.

50. W.-P. de Roever, J. Hooman and S. Ramesh, *A compositional axiomatisation of Statecharts: soundness and completeness*, Theoretical Computer Science, 101, pp. 289-335, 1992.

51. W.-P. de Roever, A. Cau, R. Kuiper, *Formalising Dijkstra's Development Strategy within Stark's Formalism* in Proc. 5th Refinement Workshop, C.B. Jones, R.C. Shaw, T. Denvir (eds.), Workshops in Computing, Springer-Verlag, 1992.

52. W.-P. de Roever, J. Zwiers, and J. Coenen *A note on compositinal refinement*, in Proc. 5th Refinement Workshop, C.B. Jones, R.C. Shaw, T. Denvir (eds.), Workshops in Computing, Springer-Verlag, 1992.

53. W.-P. de Roever and J. Hooman, *The application of compositional methods to real-time* in Proc. IFAC/IFIP/IMACS Intern. Symposium on Artificial Intelligence in Real-Time Control, Delft, the Netherlands, 16-18 June, 1992.

54. W.-P. de Roever and A. Cau, *Using Relative Refinement for Fault Tolerance*, Proc. FME'93, Odense, LNCS 670, Springer-Verlag, 1993.

55. W.-P. de Roever and K. Engelhardt, *Generalizing Abadi & Lamport's Method to Solve a Problem Posed by A. Pnueli*, LNCS 670, FME'93, Odense.

56. W.-P. de Roever and A. Cau, *Specifying Fault Tolerance within Stark's Formalism*, Proc. 23rd Annual International Symposium on Fault Tolerant Computation, Toulouse, June, 1993.

57. W.-P. de Roever, C. Petersohn, C. Huizing, and J. Peleska, *Formal Semantics for Ward & Mellor's Transformation Schema and their Comparison with Statecharts*, In: Proc. of the 6th Refinement Workshop. Workshops in Computing. Springer-Verlag, Berlin, 14–41, 1994.

58. W.-P. de Roever and F. Stomp, *A principle for Sequential Reasoning about Distributed Algorithms*, Formal Aspects of Computing, Vol. 6, No. 6, pp. 716–737, 1994.

59. W.-P. de Roever, C. Petersohn, C. Huizing, J. Peleska, *Formal Semantics for Ward & Mellor's Transformation Schemas and the Specification of Fault-Tolerant Systems*, EDCC-1 '94, LNCS 852, Springer-Verlag, 1994.

60. W.-P. de Roever and K. Engelhardt, *Towards a Practitioners' Approach to Abadi and Lamport's Method*, Formal Aspects of Computing, Vol. 7, No. 5, pp. 550–575.

61. W.-P. de Roever, F.S. de Boer, and H. Tej, *Compositionality in real-time shared variable concurrency — extended abstract*, Proc. of the 1995 Nordic Workshop on Programming Theory, Göteborg, 1-3 November 1995.

62. W.-P. de Roever, J. Zwiers, U. Hannemann, and Y. Lakhnech, *Synthesizing different development paradigms: Combining top-down with bottom-up reasoning about distributed systems.* In *Proceedings of FST & TCS Bangalore*, LNCS 1026, pp. 80 – 95, Springer-Verlag, 1995.

63. W.-P. de Roever and K. Engelhardt, *Simulation of Specification Statements in Hoare Logic*, MFCS'96, pp. 324–335, LNCS 1113, 1996.

64. W.-P. de Roever, F.S. de Boer, H. Tej, and M. van Hulst, *Compositionality in real-time shared variable concurrency*, FTRTFT'96, Uppsala, pp. 420–439, LNCS 1135, 1996.

65. W.-P. de Roever, J. Zwiers, U. Hannemann, Y. Lakhnech, and F. Stomp, *Modular Completeness: Integrating the Reuse of Specified Software in Top-down Program Development.* In *FME '96: Industrial Benefit and Advances in Formal Methods*, LNCS 1051, pp. 595 – 608, Springer-Verlag, 1996.

66. W.-P. de Roever, Q. Xu, and J. He, *The Rely-Guarantee Method for Verifying Shared Variable Concurrent Programs.* Formal Aspects of Computing, Vol. 9, No. 2, pp. 149–174.

67. W.-P. de Roever and K. Engelhardt, *New Win$\frac{e}{d}$ for Old Bags*, In: J. Tromp (ed.), *A dynamic and quick intellect, Paul Vitányi 25 years @ CWI*, pp. 59–66. CWI, Amsterdam, 1996.

68. W.-P. de Roever, F.S. de Boer, and U. Hannemann, *A compositional proof system for shared variable concurrency.* In *FME '97: Industrial Applications and Strengthened Foundations of Formal Methods*, LNCS 1313, pp. 515 – 532, Springer-Verlag, 1997.

69. W.-P. de Roever, F.S. de Boer, and U. Hannemann, *Hoare-Style Compositional Proof Systems for Reactive Shared Variable Concurrency.* In *Proceedings of FST & TCS 17*, LNCS 1346 Springer-Verlag, 1997.

70. W.-P. de Roever, L. Kühne and J. Hooman, *Toward mechanical verification of parts of the IEEE P1394 serial bus.* In: 2nd International Workshop on Applied Formal Methods in Systems Design, pp. 73–85, Zagreb, Croatia, 1997.

71. W.-P. de Roever and Ulrich Hannemann, *Concurrency Verification: From Non-compositional to Compositional Proof Methods.* Proc. 8th Nordic Workshop on Programming Theory 1996, Oslo, 1997.

72. W.-P. de Roever, C. Petersohn, J. Peleska, and C. Huizing, *Formal Semantics for Ward & Mellor's TRANSFORMATION SCHEMAS and its Application to Fault-Tolerant Systems*, International Journal of Computer Systems, 13(2): pp. 125–133, 1998.

73. W.-P. de Roever, *The need for Compositional Proof Systems: A Survey.* In: *Compositionality: The Significant Difference*, pp. 1–22, LNCS 1536, Springer, 1998.

74. W.-P. de Roever and F. de Boer) *Compositional Proof Methods for Concurrency: A Semantic Approach.* In: *Compositionality: The Significant Difference*, pp. 632–647, LNCS 1536, Springer, 1998.

75. W.-P. de Roever, F. de Boer and U. Hannemann, *The Semantic Foundations of a Compositional Proof Method for Synchronously Communicating Processes.* In: M. Kutylowski, L. Pacholski, and T. Wierzbicki (eds.), *Mathematical Foundations of Computer Science 1999*, pp. 343–353, LNCS 1672, Springer, 1999.

76. W.-P. de Roever, F. de Boer and U. Hannemann, *Formal Justification of the Rely-Guarantee Paradigm for Shared-variable Concurrency: A Semantic Approach.* In: J. Wing, J. Woodcock, and J. Davies (eds.), *FM'99— Formal Methods*, pp. 1245–1265, LNCS 1709, Springer, 1999.

77. W.-P. de Roever, E. Ábrahám-Mumm, F. S. de Boer, and M. Steffen, *Verification for Java's Reentrant Multithreading Concept*, Proceedings of FoSSaCS 2002, pp. 4–20, LNCS 2303, Springer, 2002. A longer version, including the proofs for soundness and completeness, appeared as Technical Report TR-ST-02-1, March 2002.

78. W.-P. de Roever, E. Ábrahám-Mumm, F. S. de Boer, and M. Steffen, *A Compositional Operational Semantics for Java$_{MT}$*, Proceedings of the International Symposium on Verification (Theory and Practice) Celebrating Zohar Manna's 64th Birthday, Taormina, Sicily, June 29–July 4, 2003, LNCS 2772, Springer, 2003. A preliminary version appeared as Technical Report TR-ST-02-2, May 2002.

79. W.-P. de Roever, E. Ábrahám-Mumm, F. S. de Boer, and M. Steffen, *A Tool-Supported Proof System for Monitors in Java*, Proceedings of the FMCO 2002, LNCS 2852, Springer, 2003.

80. W.-P. de Roever, E. Ábrahám-Mumm, F. S. de Boer, and M. Steffen, *Inductive Proof-Outlines for Monitors in Java*, Proceedings FMOODS '03, LNCS 2884, Springer, 2003. A longer version appeared as Technical Report TR-ST-03-1, April 2003.

81. W.-P. de Roever and E. Boiten, *Getting to the Bottom of Relational Refinement: Relations and Correctness, Partial and Total*, In: R. Berghammer and B. Möller (eds.), *7th Seminar RelMiCS/2nd Workshop Kleene Algebra, Malente, May 12–17, 2003*, LNCS 3051, Springer, 2004.

82. W.-P. de Roever, E. Ábrahám, F. S. de Boer, and M. Steffen, *Inductive Proof-Outlines for Exceptions in Multithreaded Java*, Proceedigs of FSEN 2005, ENTCS, 2005.

83. W.-P. de Roever, F. S. de Boer, and M. Kyas, *A Compositional Trace Logic For Behavioral Interface Specifications*, NJC 12 (2), 116-132, 2005.

84. W.-P. de Roever, F. S. de Boer, H. Fecher, and M. Kyas, *Compositional Operational Semantics of an UML-Kernel-Model Language*, Proceedings of the Second Workshop on Stuctural Operational Semantics (SOS 2005), ENTCS, Elsevier, 2005.

85. W.-P. de Roever, *A Perspective on Program Verification*, Proceedings of VSTTE (IFIP Working Conference on Verified Software: Tools, Techniques, and Experiments), ETH Zürich, 2005.

86. W.-P. de Roever, E. Ábrahám, F. S. de Boer, M. Steffen. *An assertion-based proof system for multithreaded Java*, Theoretical Computer Science, 331 (2-3), 2005.

87. W.-P. de Roever, H. Fecher, J. Schönborn, M. Kyas, *29 new unclarities in the semantics of uml.2.0 state machines.* Proceedings of ICFEM, LNCS 3785, Springer, 2005.

88. W.-P. de Roever, M. Sylla, F. Stomp, *Verifying parameterized refinement*, Proceedings of ICECCS 2005, IEEE Computer Society, P 2284, 2005.

89. W.-P. de Roever, E. Ábrahám, F. S. de Boer, and M. Steffen, *Inductive Proof-Outlines for Exceptions in Multithreaded Java*,ENTCS 159, 281-297, 2006.

90. W.-P. de Roever, F. S. de Boer, H. Fecher, and M. Kyas, *Compositional Operational Semantics of an UML-Kernel-Model Language*, ENTCS, 156 (1), 281-297, 2006

91. W.-P. de Roever, *A perspective on Program Verification*, LNCS, 4171, Springer, 2008

92. W.-P. de Roever, E. Ábrahám, F.S. de Boer, M. Steffen *A Deductive Proof Systems for Multithreaded Java with Execeptions*, Fundamenta Informaticae 82 (1-73), 2008

Editor

1. J.W. de Bakker, W.-P. de Roever, and G. Rozenberg, *Current Trends in Concurrency – Overviews and Tutorials*, LNCS 224, Springer-Verlag, 1985.

2. J.W. de Bakker, W.-P. de Roever, and G. Rozenberg, *Linear Time, Branching Time and Partial Order in logics and models for concurrency*, REX Workshop, LNCS 354, Springer-Verlag, 1989.

3. J.W. de Bakker, W.-P. de Roever, and G. Rozenberg, *Stepwise Refinement of Distributed Systems*, REX School/Workshop, LNCS 430, Springer-Verlag, 1990.

4. J.W. de Bakker, W.-P. de Roever, and G. Rozenberg,*Foundations of Object-Oriented Languages*, REX School/Workshop, LNCS 489, Springer-Verlag, 1991.

5. J.W. de Bakker, W.-P. de Roever, and G. Rozenberg, *Real-Time: Theory in Practice*, REX Workshop, LNCS 600, Springer-Verlag, 1992.

6. J.W. de Bakker, W.-P. de Roever, and G. Rozenberg, *Semantics: Foundations and Applications*, REX Workshop, LNCS 666, Springer-Verlag, 1993.

7. J.W. de Bakker, W.-P. de Roever, and G. Rozenberg, *A decade of concurrency*, REX Workshop, LNCS 803, Springer-Verlag, 1994.

8. W.-P. de Roever, *Formal Techniques in Real-Time and Fault-Tolerant Systems*, 3rd Intern. Symposium, LNCS 863, Springer-Verlag, 1994.

9. David Gries and W.-P. de Roever, Proc. of the IFIP TC2/WG 2.2, 2.3 *International Conference on Programming Concepts and Methods* (PRO-COMET'98), 8–12 June 1998, Shelter Island, New York, Chapman & Hall, 1998.

10. Hans Langmaack, Amir Pnueli, and W.-P. de Roever, *Compositionality: The Significant Difference.* LNCS 1536, Springer, State-of-the-Art Survey, 1998.

11. F. S. de Boer, M. Bonsangue, S. Graf, and W.-P. de Roever, *Formal Methods for Components and Objects (FMCO 2002)*, LNCS 2852, Springer, 2003.

12. F. S. de Boer, M. Bonsangue, S. Graf, and W.-P. de Roever, *Formal Methods for Components and Objects (FMCO 2003)*, LNCS 3188, Springer, 2004.

13. F. S. de Boer, M. Bonsangue, S. Graf, and W.-P. de Roever, *Formal Methods for Components and Objects (FMCO 2004)*, LNCS 3657, Springer, 2005.

14. F. S. de Boer, M. Bonsangue, S. Graf, and W.-P. de Roever, *Formal Methods for Components and Objects, 4th International Symposium (FMCO 2005)*, Revised Lectures, Springer, 2006.

15. F. S. de Boer, M. Bonsangue, S. Graf, and W.-P. de Roever, *Formal Methods for Components and Objects, 5th International Symposium (FMCO 2006)*, LNCS 4709 Revised Lectures, Springer, 2007.

Technical reports (not published elsewhere)

1. W.-P. de Roever, *An exact rational function system with garbage collection in ALGOL 60*, master's thesis, report MR 119/70, Mathematisch Centrum, 1970.

2. W.-P. de Roever, *ALGOL 60 as defined by the Revised Report*, MC–syllabus, Mathematisch Centrum, 1970.

3. W.-P. de Roever and J. van Keulen, *Handbook for practicum computer Science*, Free university, Amsterdam, 1973 (in Dutch).

4. W.-P. de Roever, *On proofs about backtracking: a tutorial*, University of Rennes, France, Internal Report no. 51, 1976.

5. W.-P. de Roever,*Maximal fixpoints solve some problems with Scott induction*, University of Rennes, France, Internal Report no. 55, 1976.

6. W.-P. de Roever, K.R. Apt and N. Francez *Progress on weakest precondition semantics for communicating sequential processes*, report, University of Utrecht, 1979.

7. W.-P. de Roever,*An essay on trees and iteration*, lecture notes for a course on program correctness, report, University of Utrecht, 1979.

8. W.-P. de Roever and N. Francez, *Fairness in Communicating Processes*, Univ. of Utrecht, 1980.

9. W.-P. de Roever and R.K. Shyamasundar, *Semantics of real–time ADA*, report, University of Nijmegen, 1983.

10. W.-P. de Roever, C. Huizing, and R. Gerth, *A compositional Semantics of Statecharts*, technical report, Eindhoven University of Technology, 1987.

11. W.-P. de Roever and J. Zwiers, *Different styles of compositional and modular proofsystems for a CCS/CSP–like language*, technical report, Philips Research, 1987.

12. W.-P. de Roever and F. Stomp, *Principles for sequential reasoning about distributed algorithms*, CAU at Kiel, Bericht Nr. 9215, 77 pages, 1992.

13. W.-P. de Roever, *Why formal methods are a must for real-time system specifications*, updated version of article 47 above, CAU at Kiel, Bericht, 1993.

14. W.-P. de Roever, E. Ábrahám-Mumm, F. S. de Boer, and M. Steffen, *A Tool-Supported Proof System for Monitors in Java*, Techical report TR-ST-02-1, Software Technology, CAU at Kiel, 2002.

15. W.-P. de Roever, E. Ábrahám-Mumm, F. S. de Boer, and M. Steffen, *A Compositional Operational Semantics for Java$_{MT}$*, Techical report TR-ST-02-2, Software Technology, CAU at Kiel, May 2002.

16. W.-P. de Roever, E. Ábrahám-Mumm, F. S. de Boer, and M. Steffen, *Verification for Java's Monitor Concept: Soundness and Completeness*, Techical report TR-ST-02-3, Software Technology, CAU at Kiel, 2002.

17. W.-P. de Roever, E. Ábrahám, F. S. de Boer, and M. Steffen, *A Hoare Logic for Monitors in Java*, Techical report TR-ST-03-1, Software Technology, CAU at Kiel, April 2003.

18. W.-P. de Roever and B. Lukoschus, *Towards Compositional Verification of Chemical Batch Plants*, Technical report, Software Technology, CAU at Kiel, 2003.