

# Dines Bjørner's Biography & Bibliography

Professor of Computing Science (Emeritus)  
Dr.h.c., MAE, MRANS (AB), ACM Fellow, IEEE Fellow  
Fredsvvej 11, DK-2840 Holte, Denmark

March 14, 2010

**Family &c.:** Dines Bjørner (DB) was born in Odense, Denmark, 4 October 1937. His father had an MSc degree in Mathematics (from Copenhagen University, 1931) and his mother a BA degree in Nordic and Modern English/America Literature (also from Copenhagen University, 1929). Since 1965 DB has been married to Kari Skallerud Bjørner (Oslo, Norway). They have two children, Charlotte and Nikolaj, and five grandchildren.

**Educational Background:** DB graduated, in 1956, with a senior high school degree in Mathematics and Natural Sciences from the Århus Cathedral School (founded in 1142). DB graduated in January 1962 with an MSc in Electronics Engineering and with a Ph.D. in Computer Science in January 1969 from the Technical University of Denmark (founded by Hans Christian Ørsted in 1828).

**IBM Career:** DB joined IBM in March 1962 at their Nordic Laboratories (founded by Cai Kinberg) in Stockholm, Sweden (where DB also first met Jean Paul Jacob and Gunnar Wedell). DB was transferred to the IBM Systems Development Division (IBM SDD) at San Jose, California, USA, in December 1963. While doing his Ph.D. (September 1965 – January 1969) DB was a lecturing consultant to IBM's European Systems Research Institute (ESRI) at Geneva, Switzerland (where DB received valuable guidance from Carlo Santacrose and where DB's friendship with Gerald Weinberg started) (1967–1968). In 1969 DB worked at IBM's Advanced Computing Systems (IBM ACS) Laboratory, Menlo Park, California, and, later that year until early 1973 at IBM Research, San Jose (again Jean Paul Jacob became a colleague). Transferred to the IBM Vienna Laboratory (directed then by Heinz Zemanek), Austria, DB resigned from IBM in August 1975 to return to Denmark after basically 13 years abroad.

**Career Outside and After IBM:** During his stay at IBM Research DB was a visiting lecturer, for several quarters, at University of California at Berkeley (1971–1972), instigated by Lotfi Zadeh whom DB considers his main mentor and for whom DB has the fondest regards. DB was a visiting guest professor at Copenhagen University in the academic year 1975–1976, before taking up his chair in September 1976 at the Technical University of Denmark (DTU). During the summer

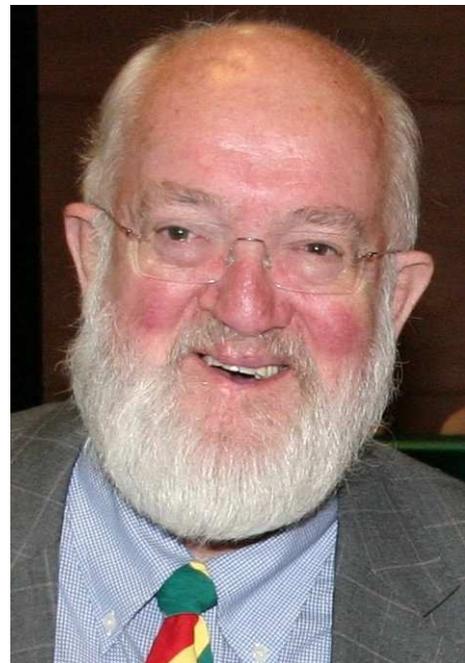


Figure 1: Dines Bjørner, Sept. 2007

semester of 1980 DB was the Danish Chair Professor at the Christian-Albrechts University of Kiel, Germany — hosted by Prof. Dr. Hans Langmaack. Together with a colleague, Prof. Christian Gram, DB instigated the Dansk Datamatik Center (DDC) in the summer of 1979. During the 1980s DB was chief scientist of DDC. In 1982–1984 DB was chairman of a Danish Government (Ministry of Education) Commission on Informatics. DB was the founding and first UN Director of UNU-IIST, the United Nations University's International Institute for Software Technology, located in Macau. DB was a visiting professor at NUS: National University of Singapore in the academic year 2004–2005, and a research guest professor at JAIST, Japan Advanced Institute of Science and Technology, Ishikawa Prefecture, Japan for basically the calendar year 2006.

DB was a visiting professor at Université Henri Poincaré and at INRIA/LORIA, Nancy, France, for two months: Oct.–Dec., 2007. During the fall and spring of 2008–2009 DB was lecturing at the Techn. Univ. of Graz, Austria and at University of Saarland, Saarbrücken, Germany (March 2009). DB was a distinguished SICSA professor at the University of Edinburgh Septe,ber–October 2009 and a visiting guest professor at Tokyo University, Japan, November–December 2009. In April 2010 DB was a visiting professor at the Technical University of Vienna, Austria.

**Lectures and Graduates:** DB has lectured and regularly lectures on six continents in almost 50 countries and territories and has advised more than 130 MSc's and almost two dozen PhDs.

**Research &c. Work:** At IBM DB first worked in the hardware (logic and systems) design of such equipment as the IBM 1070 (Sweden), the IBM 1800 and IBM 1130 computers (San Jose), and, finally, with Gene Amdahl and Ed Sussenguth, on the IBM ACS/1 supercomputer (Menlo Park). At Research DB worked with the late John W. Backus and the late Ted Codd on Functional Languages, resp. Relational Data Base Systems. At Vienna, DB, together with such colleagues as Peter Lucas, the late Hans Bekič, Kurt Walk, and Cliff B. Jones, worked on a Denotational (–like) Semantics Description of PL/I while, with his colleagues conceiving, researching, developing and using VDM (the Vienna software Development Method). At DTU and at DDC, supported by the European Community, DB initiated several advanced research & development projects: (1) Formal Semantics Description of and (2) full language Compiler for CHILL (the Intl. Telecommunications Unions Communications [C.C.I.T.T.] High Level Language) — both significantly developed by Peter L. Haff (and the late Søren Prehn); (3) Formal Semantics Description of and (4) the first European US DoD officially validated Compiler for the US DoD Ada embedded systems programming language — with significant and indispensable contributions by DB's colleagues Dr. Hans Bruun, Dr. Ole N. Oest and, again, the late Søren Prehn; (5) RAISE (Rigorous Approach to Industrial Software Engineering, headed by the late Søren Prehn and Chris George); (6) Formal Semantics Definition of VDM–SL (the VDM Specification Language, Bo Stig Hansen and Peter Gorm Larsen); (7) ProCoS (Provably Correct Systems) with, amongst others, Profs. Sir Tony Hoare (then Oxford, now Microsoft Research, Cambridge, UK), Hans Langmaack (Kiel) and Ernst-Rüdiger Olderog (Oldenburg) and others.

**UNU-IIST:** At UNU-IIST DB had a rather free hand, and was able, with a small team of excellent colleagues (Prof. Zhou Chaochen (Academician, the Chinese Academy of Science), the late Søren Prehn, Chris W. George, Richard Moore, Tomasz Janowski, Dang Van Hung, Xu Qi Wen and Kees Middelburg), to further explore the research issues still occupying DB's interest, and to apply them in a number of joint R&D projects with institutions in developing and newly industrialised countries [including newly independent states] (Argentina, Belarus, Brasil, Cameroun, China, Gabon, India, Indonesia, Mongolia, North Korea, Pakistan, Philippines, Poland, Romania, Russia, South Africa, South Korea, Thailand, Vietnam, Ukraine, Uruguay, etc.).

**Societal Work:** DB was a co-founder of VDM-Europe in 1987 and moved VDM-Europe onto FME: Formal Methods Europe in 1991. DB co-chaired two of the VDM Symposia (1987,

1990), and the International Conference on Software Engineering (ICSE) in 1989 in Pittsburgh, Pennsylvania, USA. DB was chairman of the IFIP World Congress in Dublin, Ireland in 1986, and was the instigator and General Chairman of the first World Congress on Formal Methods, FM'99, in Toulouse, France, September 20–24, 1999. DB was chairman of Academia Europaea's Informatics Section 2004–2009. DB has otherwise been involved in about 60 other scientific conferences. DB is a member of the parish council of the Virum (Lutheran Protestant Danish Folk) Church.

**Awards &c.:** DB is a Knight of The Danish Flag; is a member of Academia Europaea (MAE); is a member of The Russian Academy of Natural Sciences (MRANS [AB]), and of IFIP Working Groups 2.2 (1980-2004) and 2.3 (1980-2008). DB has received the John von Neumann Medal of the JvN Society of Hungary and the Ths. Masaryk Gold Medal from the Masaryk University, Brno, The Czech Republic. DB received the Danish Engineering Society's (IDA) Informatics Division's (IDA-IT) first BIT prize, March 1999. DB was given the degree of honorary doctor from the Masaryk University, Brno, The Czech Republic, in 2004. DB is an ACM Fellow and an IEEE Fellow.



**Publications:** DB has published more than a hundred papers, authored 4 books (three in both English and Chinese, and one in two English editions), co-authored one book and edited & co-edited twelve books. These publications, reports, etc., are included in the 162 entry bibliography, Pages 4–21.

**Research Interests:** DB's research interests, since his Vienna days, have centered on programming methodology: *methods as sets of principles for selecting and applying mathematics-based analysis and construction techniques and tools in order efficiently to construct efficient artefacts* — notably software. DB sees his main contributions to be in the research, development and propagation of formal specification principles and techniques. Currently DB focuses on the triptych of domain engineering, requirements engineering and software architecture and program organisation methods — emphasising such that relate these in mathematical as well as technical ways: (1) intrinsic, support technology, management & organisation, rules & regulation, and human behaviour facets of domains; and (2) projection, instantiation, extension and initialisation of domain requirements, etc.

**Acknowledgements:** Among the very many people for whom DB has a special, professional fondness, people who have helped DB in his professional career, he wishes to bear tribute, in approximate chronological order, to (the late) Cai Kinberg, Gunnar Wedell, Jean Paul Jacob, Gerald Weinberg, Gene Amdahl, Ed Sussenguth, Tien Chi (T.C.) Chen, Lotfi Zadeh, (the late) Ted Codd, (the late) John W. Backus, Peter Lucas, Cliff Jones, (the late) Hans Bekič, Kurt Walk, Christian Gram, Ole N. Oest, Erich Neuhold, (the late) Søren Prehn, Sir Tony Hoare, Hans Langmaack, Larry Druffel, Zhou Chao Chen and Chris George.

## Bibliography

The entries, by year, in reverse chronological order, separates *authored books, edited book, published papers, (usually Web “published”) lecture notes, reports, experimental, (usually Web “published”) reports, and administrative, in this case UNU-IIST annual, reports.* For statistics on such typed documents, pls. cf. Page 5.

- 2011:** Paper:[1]
- 2010:** Auth.Book:[2, 3, 4]  
Paper:[5, 6, 7, 8]  
Lect.: [9]
- 2009:** Auth.Book:[10]  
Paper:[11, 12, 13]  
Lect.: [14]  
Exp.Rept.: [15, 16]
- 2008:** Auth.Book:[17, 18, 19]  
Paper:[20, 21]  
Lect.: [22, 23, 24]
- 2007:** Paper:[25, 26]  
Ed.Book:[27]  
Exp.Rept.: [28]
- 2006:** Auth.Book:[29, 30, 31]  
Rept.: [32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42]
- 2005:** Rept.: [43]
- 2004:** Paper:[44, 45, 46, 47, 48]
- 2003:** Paper:[49, 50, 51, 52, 53, 52]
- 2002:** Paper:[54, 55, 56, 57, 54, 58, 59]
- 2001:** Paper:[60, 61, 62]
- 2000:** Paper:[63, 64, 65, 66, 67]  
Rept.: [68]
- 1999:** Paper:[69, 70, 71, 72]  
Rept.: [73, 74]
- 1998:** Paper:[75, 76, 77, 78, 79]
- 1997:** Paper:[80, 81, 82]
- 1996:** Rept.: [83, 84, 85]  
Admin.: [86]
- 1995:** Paper:[87]  
Rept.: [88, 89, 90]  
Admin.: [91]
- 1994:** Paper:[92, 93, 94, 95]  
Admin.: [96]
- 1993:** Rept.: [97, 98, 99]  
Admin.: [100]
- 1992:** Paper:[101, 102, 103, 104, 105]  
Admin.: [106, 107]
- 1991:** Paper:[108, 109, 110, 111]  
Ed.Book:[112, 113, 114]
- 1990:** Paper:[115]  
Ed.Book:[116]
- 1989:** Paper:[117, 118, 119, 120]
- 1988:** Ed.Book:[121, 122]
- 1987:** Paper:[123, 124, 125, 126, 127]  
Ed.Book:[128]
- 1986:** Paper:[129, 130, 131]
- 1985:** Paper:[132]
- 1983:** Paper:[133]
- 1982:** Paper:[134, 135, 136, 137, 138, 139]  
Auth.Book:[140]  
Ed.Book:[141]
- 1981:** Paper:[142]
- 1980:** Paper:[143]
- 1980:** Paper:[144, 145, 146, 147, 148, 149, 150]  
Ed.Book:[151, 152]
- 1978:** Paper:[153, 154, 155, 156]  
Ed.Book:[157]
- 1977:** Paper:[158, 159]

1974: Rept.: [160]

1973: Paper: [161]

1972: Paper: [162]

1971: Paper: [163]

1970: Paper: [164, 165, 166, 167, 168, 169]  
Ed. Book: [170]

1969: Rept.: [171]

Statistics

(co-) Authored Books: 11

(co-) Edited Books: 12

Published Papers: 108

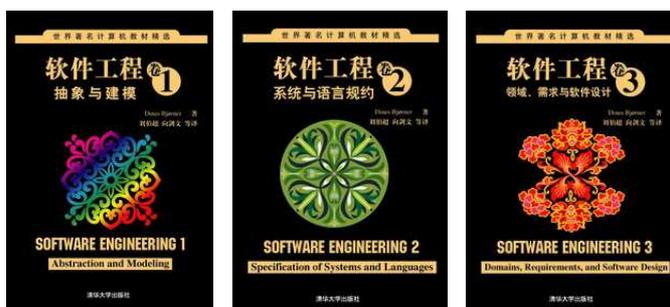
Lecture Notes: 5

Reports: 27

Experimental Reports: 3

Administrative Reports: 7

Book Covers



[2, 3, 4, 2010]



PUBLISHED BY  
 Springer, 1655 Ave.  
 of the Stars, Sec 13,  
 Torrance, CA 90501, USA  
 Email: dines@cs.berkeley.edu  
 ISBN 978-1-4020-9117-1

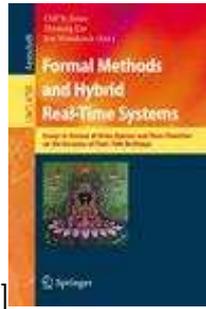
1594978-4-93392-17-1

2009年2月

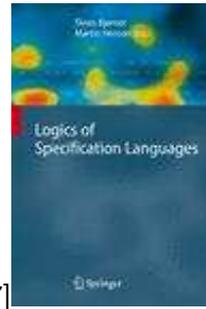
[10, 2009]



[17, 18, 19, 2008]



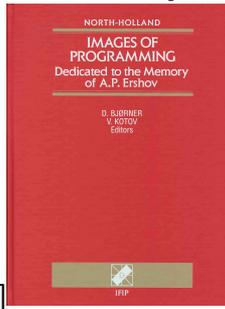
[25, 2007]



[27, 2007]



[29, 30, 31, 2006]



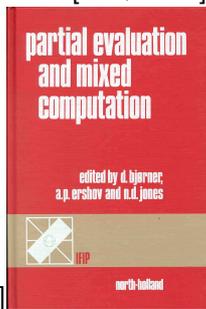
[113, 1991]



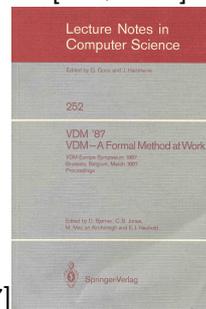
[112, 1991]



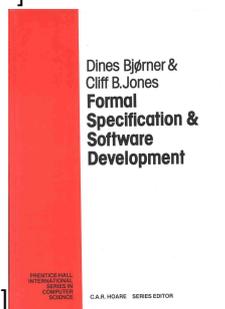
[116, 1990]



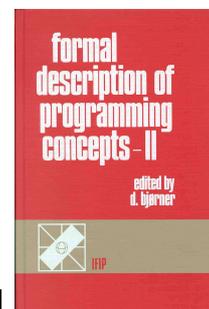
[121, 1988]



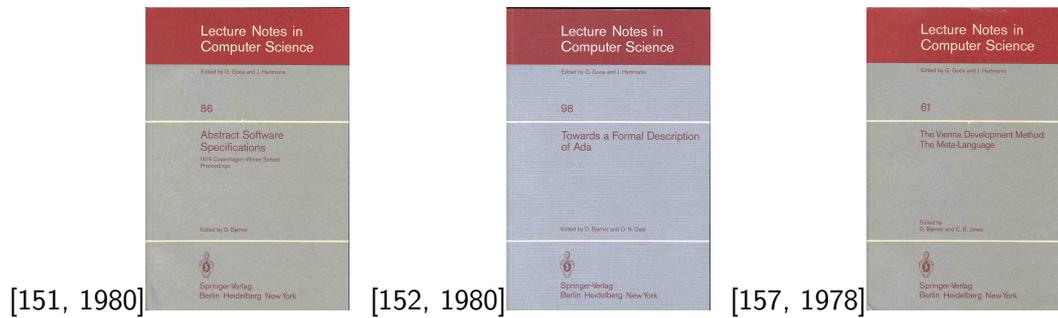
[128, 1987]



[140, 1982]



[141, 1982]



## References

- [1] Dines Bjørner. Believable Software Management. *Encyclopedia of Software Engineering*, 1(1):1–32, 2011. (Taylor & Francis, New York and London, edited by Philip Laplante).
- [2] Dines Bjørner. **Chinese:** *Software Engineering, Vol. 1: Abstraction and Modelling*. Qinghua University Press, 2010.
- [3] Dines Bjørner. **Chinese:** *Software Engineering, Vol. 2: Specification of Systems and Languages*. Qinghua University Press, 2010.
- [4] Dines Bjørner. **Chinese:** *Software Engineering, Vol. 3: Domains, Requirements and Software Design*. Qinghua University Press, 2010.
- [5] Dines Bjørner. **Russian:** Domain Science & Engineering – From Computer Science to The Sciences of Informatics, Part I of II: The Engineering Part. *Kibernetika i sistemny analiz*, (2), May 2010.
- [6] Dines Bjørner. **Russian:** Domain Science & Engineering – From Computer Science to The Sciences of Informatics Part I of II: The Science Part. *Kibernetika i sistemny analiz*, (2), May 2010.
- [7] Dines Bjørner. Domain Engineering. In *BCS FACS Seminars*, Lecture Notes in Computer Science, the BCS FAC Series (eds. Paul Boca and Jonathan Bowen), pages 1–42, London, UK, 2010. Springer.
- [8] Dines Bjørner. From Domains to Requirements — On a Triptych of Software Development. *Submitted for publication*, Submitted 8 January, 2010.
- [9] Dines Bjørner. *From Domains to Requirements: The Triptych Approach*. Internet, April 2010. pages. Slightly incomplete draft version. See <http://www.complang.tuwien.ac.at/bjorner/book.pdf>.
- [10] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering*. JAIST Press, March 2009. The monograph contains the following chapters: [33, 34, 35, 36, 37, 38, 39, 40, 41, 42].
- [11] Dines Bjørner. On Mereologies in Computing Science. In *Festschrift for Tony Hoare, History of Computing* (ed. Bill Roscoe), London, UK, 2009. Springer.

- [12] Dines Bjørner. The Role of Domain Engineering in Software Development. Why Current Requirements Engineering Is Flawed! In *Perspectives of Systems Informatics*, volume 5947 of *Lecture Notes in Computer Science*, pages 2–34, Heidelberg, Wednesday, January 27, 2010. Springer.
- [13] Dines Bjørner. An Emerging Domain Science – A Rôle for Stanisław Leśniewski’s Mereology and Bertrand Russell’s Philosophy of Logical Atomism. *Higher-order and Symbolic Computation*, 2009.
- [14] Dines Bjørner. *From Domains to Requirements: The Triptych Approach to Software Engineering*. Internet, Summer 2009. Slightly incomplete draft version, approximately XXVII+160+25 pages (frontmatter, main text, appendices). See <http://www.imm.dtu/~db/de+re-p.pdf>.
- [15] Dines Bjørner. What is Logistics ? A Domain Analysis. Techn. report, <http://www2.imm.dtu.dk/~db/pipeline.pdf>, Fredsvej 11, DK-2840 Holte, Denmark, June 2009.
- [16] Dines Bjørner. A Domain Model of Oil Pipelines. Techn. report, <http://www2.imm.dtu.dk/~db/pipeline.pdf>, Fredsvej 11, DK-2840 Holte, Denmark, June 2009.
- [17] Dines Bjørner. *Software Engineering, Vol. 1: Abstraction and Modelling*. Qinghua University Press, 2008.
- [18] Dines Bjørner. *Software Engineering, Vol. 2: Specification of Systems and Languages*. Qinghua University Press, 2008.
- [19] Dines Bjørner. *Software Engineering, Vol. 3: Domains, Requirements and Software Design*. Qinghua University Press, 2008.
- [20] Dines Bjørner. From Domains to Requirements. In *Montanari Festschrift*, volume 5065 of *Lecture Notes in Computer Science* (eds. Pierpaolo Degano, Rocco De Nicola and José Meseguer), pages 1–30, Heidelberg, May 2008. Springer.
- [21] Dines Bjørner and Asger Eir. Compositionality: Ontology and Mereology of Domains. Some Clarifying Observations in the Context of Software Engineering in July 2008, eds. Martin Steffen, Dennis Dams and Ulrich Hannemann. In *Festschrift for Prof. Willem Paul de Roever Concurrency, Compositionality, and Correctness*, volume 5930 of *Lecture Notes in Computer Science*, pages 22–59, Heidelberg, July 2010. Springer.
- [22] Dines Bjørner. Domain Engineering. In *The 2007 Lipari PhD Summer School*, Dds. E. Börger and A. Ferro, pages 1–102. University of Catania, Sicily, Italy, 2007.
- [23] Dines Bjørner. *Software Engineering: A Triptych Approach*. Internet, Summer 2008. 610 pages. Slightly incomplete draft version. See <http://www.imm.dtu/~db/tseb.pdf>.
- [24] Dines Bjørner. *Domain Engineering*. Internet, Summer 2008. 469 pages. Slightly incomplete draft version. See <http://www.imm.dtu/~db/de-p.pdf>.

- [25] Dines Bjørner. Domain Theory: Practice and Theories, Discussion of Possible Research Topics. In *ICTAC'2007*, volume 4701 of *Lecture Notes in Computer Science* (eds. J.C.P. Woodcock et al.), pages 1–17, Heidelberg, September 2007. Springer.
- [26] Dines Bjørner. Transportation Systems Development. In *2007 ISoLA Workshop On Leveraging Applications of Formal Methods, Verification and Validation; Special Workshop Theme: Formal Methods in Avionics, Space and Transport*, ENSMA, Futuroscope, France, December 12–14 2007.
- [27] Dines Bjørner and Martin C. Henson, editor. *Logics of Specification Languages*. EATCS Series, Monograph in Theoretical Computer Science. Springer, Heidelberg, Germany, 2008.
- [28] Dines Bjørner. A Container Line Industry Domain. Techn. report, <http://www2.imm.dtu.dk/~db/container-paper.pdf>, Fredsvej 11, DK-2840 Holte, Denmark, June 2007.
- [29] Dines Bjørner. *Software Engineering, Vol. 1: Abstraction and Modelling*. Texts in Theoretical Computer Science, the EATCS Series. Springer, 2006. Republished in English by Qinghua Univ. Press, Peking, China, 2009 – and translated into Chinese (by Dr. Liu Bo Chao), and also published by Qinghua Univ. Press, 2010.
- [30] Dines Bjørner. *Software Engineering, Vol. 2: Specification of Systems and Languages*. Texts in Theoretical Computer Science, the EATCS Series. Springer, 2006. Chapters 12–14 are primarily authored by Christian Krog Madsen.
- [31] Dines Bjørner. *Software Engineering, Vol. 3: Domains, Requirements and Software Design*. Texts in Theoretical Computer Science, the EATCS Series. Springer, 2006. Republished in English by Qinghua Univ. Press, Peking, China, 2009 – and translated into Chinese (by Dr. Liu Bo Chao), and also published by Qinghua Univ. Press, 2010.
- [32] Dines Bjørner. Michael Jackson's Problem Frames: Domains, Requirements and Design. In Li ShaoYang and Michael Hinchley, editors, *ICFEM'97: International Conference on Formal Engineering Methods*, Los Alamitos, November 12–14 1997. IEEE Computer Society.
- [33] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 1: On Domains and On Domain Engineering – Prerequisites for Trustworthy Software – A Necessity for Believable Management, pages 3–38. JAIST Press, March 2009.
- [34] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 2: Possible Collaborative Domain Projects – A Management Brief, pages 39–56. JAIST Press, March 2009.
- [35] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 3: The Rôle of Domain Engineering in Software Development, pages 57–72. JAIST Press, March 2009.
- [36] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 4: Verified Software for Ubiquitous Computing – A VSTTE Ubiquitous Computing Project Proposal, pages 73–106. JAIST Press, March 2009.

- [37] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering*, chapter 5: The Triptych Process Model – Process Assessment and Improvement, pages 107–138. JAIST Press, March 2009.
- [38] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 6: Domains and Problem Frames – The Triptych Dogma and M.A.Jackson’s PF Paradigm, pages 139–175. JAIST Press, March 2009.
- [39] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 7: Documents – A Rough Sketch Domain Analysis, pages 179–200. JAIST Press, March 2009.
- [40] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 8: Public Government – A Rough Sketch Domain Analysis, pages 201–222. JAIST Press, March 2009.
- [41] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 9: Towards a Model of IT Security — – The ISO Information Security Code of Practice – An Incomplete Rough Sketch Analysis, pages 223–282. JAIST Press, March 2009.
- [42] Dines Bjørner. *Domain Engineering: Technology Management, Research and Engineering [10]*, chapter 10: Towards a Family of Script Languages – – Licenses and Contracts – Incomplete Sketch, pages 283–328. JAIST Press, March 2009.
- [43] Shaofa Yang and Dines Bjørner. A Formal Specification of CTP: Communicating Transaction Processes. Technical report, School of Computing, National University of Singapore, Science Drive 2, Singapore, June 2005.
- [44] Dines Bjørner, Chris W. George, Anne Eliabeth Haxthausen, Christian Krog Madsen, Steffen Holmslykke, and Martin Pěnička. “UML”-ising Formal Techniques. In *INT 2004: Third International Workshop on Integration of Specification Techniques for Applications in Engineering*, volume 3147 of *Lecture Notes in Computer Science*, pages 423–450. Springer-Verlag, 28 March 2004, ETAPS, Barcelona, Spain. To be published in INT-2004 Proceedings, Springer-Verlag.
- [45] Dines Bjørner. The Grand Challenge – FAQs of the R&D of a Railway Domain Theory. In *IFIP World Computer Congress, Topical Days: TRain: The Railway Domain*, IFIP, Amsterdam, The Netherlands, 2004. Kluwer Academic Press.
- [46] Dines Bjørner. The TRain Topical Day. In *Building the Information Society, IFIP 18th World Computer Congress, Topical Sessions, 22–27 August, 2004, Toulouse, France — Ed. Renée Jacquart*, pages 607–611. Kluwer Academic Publishers, August 2004. A Foreword.
- [47] Martin Pěnička and Dines Bjørner. From Railway Resource Planning to Train Operation — a Brief Survey of Complementary Formalisations. In *Building the Information Society, IFIP 18th World Computer Congress, Topical Sessions, 22–27 August, 2004, Toulouse, France — Ed. Renée Jacquart*, pages 629–636. Kluwer Academic Publishers, August 2004.
- [48] Dines Bjørner. Towards a Formal Model of CyberRail. In *Building the Information Society, IFIP 18th World Computer Congress, Topical Sessions, 22–27 August, 2004, Toulouse, France*

— Ed. *René Jacquart*, pages 657–664. Kluwer Academic Publishers, August 2004. Original report also listed some of DB's students as co-authors.

- [49] Dines Bjørner. Logics of Formal Software Specification Languages — The Possible Worlds cum Domain Problem. In Lefteris Kirousis, editor, *Fourth Pan-Hellenic Symposium on Logic*, Thessalonika, Greece, July 3–7 2003.
- [50] Albena Kirilova Strupchanska, Martin Pěnička, and Dines Bjørner. Railway Staff Rostering. In *FORMS2003: Symposium on Formal Methods for Railway Operation and Control Systems*. L'Harmattan Hongrie, 15–16 May 2003. Conf. held at Techn.Univ. of Budapest, Hungary. Editors: G. Tarnai and E. Schnieder, Germany.
- [51] Martin Pěnička, Albena Kirilova Strupchanska, and Dines Bjørner. Train Maintenance Routing. In *FORMS'2003: Symposium on Formal Methods for Railway Operation and Control Systems*. L'Harmattan Hongrie, 15–16 May 2003. Conf. held at Techn.Univ. of Budapest, Hungary. Editors: G. Tarnai and E. Schnieder, Germany.
- [52] Dines Bjørner. Dynamics of Railway Nets: On an Interface between Automatic Control and Software Engineering. In *CTS2003: 10th IFAC Symposium on Control in Transportation Systems*, Oxford, UK, August 4–6 2003. Elsevier Science Ltd. Symposium held at Tokyo, Japan. Editors: S. Tsugawa and M. Aoki.
- [53] Dines Bjørner. Domain Engineering: A “Radical Innovation” for Systems and Software Engineering ? In *Verification: Theory and Practice*, volume 2772 of *Lecture Notes in Computer Science*, Heidelberg, October 7–11 2003. Springer-Verlag. The Zohar Manna International Conference, Taormina, Sicily 29 June – 4 July 2003.
- [54] Dines Bjørner, Chris W. George, and Søren Prehn. Computing Systems for Railways — A Rôle for Domain Engineering. Relations to Requirements Engineering and Software for Control Applications. In *Integrated Design and Process Technology*. Editors: Bernd Kraemer and John C. Petterson, P.O.Box 1299, Grand View, Texas 76050-1299, USA, 24–28 June 2002. Society for Design and Process Science.
- [55] Dines Bjørner. Some Thoughts on Teaching Software Engineering – Central Rôles of Semantics. In *Liber Amicorum: Professor Jaco de Bakker*, pages 27–45, Amsterdam, The Netherlands, 30 August 2002. Stichting Centrum voor Wiskunde en Informatica. Eds.: Frank de Boer, Marlin van der Heijden, Paul Klint, and Jan Rutten.
- [56] Dines Bjørner. Towards “Posite & Prove” Design Calculi for Requirements Engineering and Software Design. In *Essays and Papers in Memory of Ole-Johan Dahl*, Lecture Notes in Computer Science. Springer-Verlag, 2004.
- [57] Dines Bjørner. New Results and Trends in Formal Techniques for the Development of Software for Transportation Systems. In *FORMS2003: Symposium on Formal Methods for Railway Operation and Control Systems*. Institut für Verkehrssicherheit und Automatisierungstechnik, Techn.Univ. of Braunschweig, Germany, 15–16 May 2003. Conf. held at Techn.Univ. of Budapest, Hungary. Editors: G. Tarnai and E. Schnieder, Germany.
- [58] Dines Bjørner. Domain Models of “The Market” — in Preparation for E-Transaction Systems. In *Practical Foundations of Business and System Specifications (Eds.: Haim Kilov and Ken Baclawski)*, The Netherlands, December 2002. Kluwer Academic Press.

- [59] Dines Bjørner. What is an Infrastructure ? In *Formal Methods at the Crossroads. From Panacea to Foundational Support*, Lecture Notes in Computer Science, Heidelberg, Germany, 2003. Springer-Verlag. 10th Anniversary Colloquium of UNI/IIST, the International Institute for Software Technology of The United Nations University (Macau SAR, China), Lisbon, Portugal, March 18-20, 2002. Eds.: Tom Maibaum and Bernhard K. Aichernig, ISBN 3-540-20527-6.
- [60] Dines Bjørner, M. Broy, and Alexandre V. Zamulin, editors. *Perspectives of System Informatics, IV*, volume 2244 of *Lecture Notes in Computer Science*, Heidelberg, Germany, 28 June — 2 July 2001. Springer.
- [61] Dines Bjørner. On Formal Techniques in Protocol Engineering: Example Challenges. In *Formal Techniques for Networks and Distributed Systems (Eds.: Myungchul Kim, Byoungmoon Chin, Sungwon Kang and Danhyung Lee)*, pages 395–420. Kluwer, August 28–31 2001. Invited Key Lecture.
- [62] Dines Bjørner. Informatics Models of Infrastructure Domains. In *Computer Science and Information Technologies*, pages 13–73, Yerevan, Armenia, September 17–20 2001. National Academy of Sciences of Armenia, Institute for Informatics and Automation Problems.
- [63] Dines Bjørner. Formal Software Techniques in Railway Systems. In Eckehard Schnieder, editor, *9th IFAC Symposium on Control in Transportation Systems*, pages 1–12, Technical University, Braunschweig, Germany, 13–15 June 2000. VDI/VDE-Gesellschaft Mess- und Automatisierungstechnik, VDI-Gesellschaft für Fahrzeug- und Verkehrstechnik. Invited talk.
- [64] Dines Bjørner. Domain Engineering, A Software Engineering Discipline in Need of Research. In *SOFSEM'2000: Theory and Practice of Informatics*, volume 1963 of *Lecture Notes in Computer Science*, pages 1–17, Milovy, Czech Republic, November 25 — December 2 2000. Springer Verlag.
- [65] Dines Bjørner. Informatics: A Truly Interdisciplinary Science — Prospects for an Emerging World. In S. Balasubramanian, editor, *Information Technology and Communication — at the Dawn of the New Millenium*, pages 71–84, Bangkok, Thailand, 1–4 August 2000. Asian Institute of Technology. Invited keynote.
- [66] Dines Bjørner. Informatics: A Truly Interdisciplinary Science — Computing Science and Mathematics. In Drumei Bainov, editor, *9th Intl. Colloquium on Numerical Analysis and Computer Science with Applications*, P.O.Box 45, BG-1504 Sofia, Bulgaria, 12–17 August 2000. Bulgarian Academy of Sciences, Academic Publications. Invited keynote.
- [67] Dines Bjørner. “What is a Method ?” — *An Essay of Some Aspects of Software Engineering*, chapter 9, pages 175–203. Monographs in Computer Science. IFIP: International Federation for Information Processing. Springer Verlag, New York, N.Y., USA, 2003. Programming Methodology: Recent Work by Members of IFIP Working Group 2.3. Eds.: Annabelle McIver and Carrol Morgan.
- [68] Dines Bjørner. Domain Engineering: “Upstream” from Requirements Engineering and Software Design. *US ONR + Univ. of Genoa Workshop, Santa Margherita Ligure*, June 2000. Ed.: Egidio Astesiano et al. Dept. of Informatics, Genoa Univ., Italy.

- [69] Dines Bjørner. Domain Modelling: Resource Management Strategics, Tactics & Operations, Decision Support and Algorithmic Software. In Jim Davies, Bill Roscoe, and Jim Woodcock, editors, *Millenial Perspectives in Computer Science*, Cornerstones of Computing (Ed.: Richard Bird and Tony Hoare), pages 23–40, Houndmills, Basingstoke, Hampshire, RG21 6XS, UK, 2000. Palgrave (St. Martin's Press). An Oxford University and Microsoft Symposium in Honour of Sir Anthony Hoare, September 13–14, 1999.
- [70] Dines Bjørner. A Triptych Software Development Paradigm: Domain, Requirements and Software. Towards a Model Development of A Decision Support System for Sustainable Development. In ErnstRüdiger Olderog and Bernhard Steffen, editors, *Festschrift to Hans Langmaack: Correct Systems Design: Recent Insight and Advances*, volume 1710 of *Lecture Notes in Computer Science*, pages 29–60. University of Kiel, Germany, Springer-Verlag, October 1999.
- [71] Dines Bjørner. Challenge '2000: some aspects of: "How to Create a Software Industry". In *Proceedings of CSIC'99*, Ed.: R. Jalili, 22 January 1999.
- [72] Dines Bjørner. Pinnacles of Software Engineering: 25 Years of Formal Methods. *Annals of Software Engineering*, 10:11–66, 2000. Eds. Dilip Patel and Wang Yi.
- [73] Dines Bjørner, Søren Prehn, and Chris W. George. Formal Models of Railway Systems: Domains. Technical report, Dept. of IT, Technical University of Denmark, Bldg. 344, DK–2800 Lyngby, Denmark, September 23 1999. Presented at the FME Rail Workshop on Formal Methods in Railway Systems, FM'99 World Congress on Formal Methods, Toulouse, France. Available on CD ROM.
- [74] Dines Bjørner, Søren Prehn, and Chris W. George. Formal Models of Railway Systems: Requirements. Technical report, Dept. of IT, Technical University of Denmark, Bldg. 344, DK–2800 Lyngby, Denmark, September 23 1999. Presented at the FME Rail Workshop on Formal Methods in Railway Systems, FM'99 World Congress on Formal Methods, Toulouse, France. Available on CD ROM.
- [75] Dines Bjørner. Issues in International Cooperative Research — Why not Asian, African or Latin American 'Esprits' ? Research, Department of Information Technology, Software Systems Section, Technical University of Denmark, DK–2800 Lyngby, Denmark, March 1998. Paper presented at the pre-ICSE'98 Asia Pacific Forum on Software Engineering, Kyoto, Japan, April 20–21, 1998. 25 pages.
- [76] Dines Bjørner. Challenges in Domain Modelling — Algebraic or Otherwise. Research, Department of Information Technology, Software Systems Section, Technical University of Denmark, DK–2800 Lyngby, Denmark, March 1998. Paper presented at the April 27–29 1998 CafeOBJ Workshop, Numazu, Japan. 41 pages.
- [77] Dines Bjørner and Jorge R. Cuéllar. Software Engineering Education: Rôles of Formal Specification and Design Calculi. *Annals of Software Engineering*, 6:365–410, 1998. Published April 1999.
- [78] Dines Bjørner. Formal Methods in the 21st Century — An Assessment of Today, Predictions for The Future — Panel position presented at the ICSE'98, Kyoto, Japan. Technical report, Department of Information Technology, Software Systems Section, Technical University of Denmark, April 22–14 1998.

- [79] Dines Bjørner. Where do Software Architectures come from ? Systematic Development from Domains and Requirements. A Re-assessment of Software Engineering ? *South African Journal of Computer Science*, 22:3–13, March 1999. Editor: Chris Brink.
- [80] Dines Bjørner, Chris W. George, and Søren Prehn. *Scheduling and Rescheduling of Trains*, chapter 8, pages 157–184. *Industrial Strength Formal Methods in Practice*, Eds.: Michael G. Hinchey and Jonathan P. Bowen. FACIT, Springer-Verlag, London, England, 1999.
- [81] Dines Bjørner. From Domain Engineering via Requirements to Software. Formal Specification and Design Calculi. In *SOFSEM'97*, volume 1338 of *Lecture Notes in Computer Science*, pages 219–248. Springer-Verlag, November 1997.
- [82] Dines Bjørner. Domains as Prerequisites for Requirements and Software &c. In M. Broy and B. Rumpe, editors, *RTSE'97: Requirements Targeted Software and Systems Engineering*, volume 1526 of *Lecture Notes in Computer Science*, pages 1–41. Springer-Verlag, Berlin Heidelberg, 1998.
- [83] Dines Bjørner. Federated GIS+DIS-based Decision Support Systems for Sustainable Development — a Conceptual Architecture. Research Report 61, UNU/IIST, P.O.Box 3058, Macau, March 1996. Draft.
- [84] Dines Bjørner. New Software Development. Administrative/Technical Report 59, UNU/IIST, P.O.Box 3058, Macau, January 1996. Special Theme paper: *New Software Technology Development*. Paper was first prepared in September 1995 for an International Symposium: *New IT Applications for Governance and Public Administration*, convened by the UN's Department for Development Support and Management Service: UNDDSMS, Beijing, November 9–14, 1995. This symposium was subsequently moved (tentatively) to June 1996, same venue. In this paper we review (i) basic functions of Governance and Public Administration with respect to its possible needs for Computers & Communications (notably software); (ii) the basic tasks confronting upper level management of Governance and Public Administration institutions when considering Computers & Communications; (iii) the basic tasks confronting Computers & Communications facilities management when procuring, monitoring the development of and operating new software technology for Governance and Public Administration; and (iv) the basic tasks confronting New Development of Software Technology. In this latter we cover current thoughts on software development process modelling, current methods, principles, techniques, and tools of software development. We need to cover (i–iii) in order to properly understand the setting for and offerings of what is covered in (iv).
- [85] P.A.V. Hall, Dines Bjørner, and Z. Mikolajuk. Decision Support Systems for Sustainable Development: Experience and Potential — a Position Paper. Technical Report 80, UNU/IIST, P.O.Box 3058, Macau, August 1996.
- [86] Dines Bjørner and M. Stuart. UNU/IIST Annual Report: 1996. Administrative Report 85, UNU/IIST, P.O.Box 3058, Macau, (October) January (1996) 1997. Reports on the status of UNU/IIST and its activities during 1996.
- [87] Dines Bjørner, M. Broy, and I.V. Pottosin, editors. *Formal Methods in Programming and Their Applications*, volume 735 of *Lecture Notes in Computer Science*, Heidelberg, Germany, 28 June — 2 July 1993. Springer, Berlin.

- [88] Dines Bjørner. New Software Technology Development. Technical Report 46, UNU/IIST, P.O.Box 3058, Macau, November 1995. International Symposium: New IT for Governance and Publication Administration, Beijing, China; organized by UNDDSMS, June 1996.
- [89] Dines Bjørner. Software Support for Infrastructure Systems. Technical Report 47, UNU/IIST, P.O.Box 3058, Macau, November 1995. Position statement for the *First Malaysia Information Technology Days: 1–3 November 1995* We define and motivate the need for research into, advanced development and actual deployment, by public and private sector institutions and enterprises, of an advanced class of uses of geographically widely distributed information technology systems of computers and communications in achieving software support for infrastructure systems.
- [90] Dines Bjørner. Software Systems Engineering — From Domain Analysis to Requirements Capture: An Air Traffic Control Example. In *2nd Asia-Pacific Software Engineering Conference (APSEC '95)*. IEEE Computer Society, 6–9 December 1995. Brisbane, Queensland, Australia.
- [91] Dines Bjørner. UNU/IIST Annual Report: 1995. Administrative Report 53, UNU/IIST, P.O.Box 3058, Macau, January 1996. Reports on the status of UNU/IIST and its activities during 1995.
- [92] Dines Bjørner. Prospects for a Viable Software Industry — Enterprise Models, Design Calculi, and Reusable Modules. In *First ACM Japan Chapter Conference*, Singapore, March 7–9 1994. World Scientific Publ. Appendix in collaboration with Søren Prehn and Dong Yulin.
- [93] Dines Bjørner, Yu Lin Dong, and Søren Prehn. Domain Analyses: A Case Study of Station Management. In *KICS'94: Kunming International CASE Symposium, Yunnan Province, P.R.of China*. Software Engineering Association of Japan, 16–20 November 1994.
- [94] Jan Goossenaerts and Dines Bjørner. An Information Technology Framework for Lean/Agile Supply-based Industries in Developing Countries. Technical Report 30, UNU/IIST, P.O.Box 3058, Macau, 1994. Published in *Proceedings of the International Dedicated Conference on Lean/Agile Manufacturing in the Automotive Industries*, ISATA, London, UK.
- [95] Jan Goossenaerts and Dines Bjørner. Interflow Systems for Manufacturing: Concepts and a Construction. Technical Report 31, UNU/IIST, P.O.Box 3058, Macau, 1994. Published in *Proceedings of the European Workshop on Integrated Manufacturing Systems Engineering*.
- [96] Dines Bjørner. UNU/IIST Annual Report: 1994. Research Report 22, UNU/IIST, P.O.Box 3058, Macau, January 1995.
- [97] Dines Bjørner. *Formal Models of Robots: Geometry & Kinematics*, chapter 3, pages 37–58. Prentice-Hall International, January 1994. Eds.: W.Roscoe and J.Woodcock, *A Classical Mind*, Festschrift for C.A.R. Hoare.
- [98] Dines Bjørner. University Curricula in Software Technology. Technical Report 7, UNU/IIST, P.O.Box 3058, Macau, March 15 1993. Keynote address: IFIP TC3 WG3.4/SRIG-ET (SEARCC) International Working Conference 1993: *Software Engineering Education*, Hong Kong, September 28 – October 2, 1993.

- [99] Dines Bjørner. Accreditation, Licensing and Certification; Curricula, Engineers and Software. Technical Report 14, UNU/IIST, P.O.Box 3058, Macau, 7 November 1993 1993, Revised 8 December 1993. Presented at the *UNIDO/COGIT Meeting*, Vienna, Austria, November 23, 1993.
- [100] Dines Bjørner. UNU/IIST Annual Report: 1993. Administrative Report 18, UNU/IIST, P.O.Box 3058, Macau, January 1994.
- [101] Dines Bjørner. A Rôle for UNU/IIST: Developing Countries' Access to New Information Technologies. In *Access to Science and Technology — The Rôle of Information Technology*. Kyoto University & UNU Press, May 12–14 1992.
- [102] Dines Bjørner. From Research to Practice: Self-reliance of the Developing World through Software Technology: Usage, Education & Training, Development & Research. In Jan van Leeuwen, editor, *Information Processing '92, IFIP World Congress '92, Madrid*, pages 65–71. IFIP Transaction A-12: Algorithms, Software, Architecture, Sept. 7–11 1992.
- [103] Dines Bjørner, Anne Elisabeth Haxthausen, and Klaus Havelund. Formal, Model-oriented Software Development Methods: From VDM to ProCoS, and from RAISE to LaCoS. *Future Generation Computer Systems*, 1992.
- [104] Dines Bjørner and Jørgen Fischer Nilsson. Algorithmic & Knowledge Based Methods — Do they “Unify” ? — with some Programme Remarks for UNU/IIST. In *International Conference on Fifth Generation Computer Systems: FGCS'92*, pages (Separate folder, “191–198”). ICOT, June 1–5 1992.
- [105] Dines Bjørner. Trustworthy Computing Systems: The ProCoS Experience. In *14'th ICSE: Intl. Conf. on Software Eng., Melbourne, Australia*, pages 15–34. ACM Press, May 11–15 1992.
- [106] Dines Bjørner. UNU/IIST Programme. Administrative Report, 1, UNU/IIST, P.O.Box 3058, Macau, February 19 1993. Presents the co-ordinates along, and principles according to which UNU/IIST will select and pursue its Programmatic Activities the next couple of years.
- [107] Dines Bjørner. UNU/IIST Annual Report: 1992. Administrative Report 2, UNU/IIST, P.O.Box 3058, Macau, January 1993. Reports on the status of UNU/IIST and its activities after the first 6 months of operation.
- [108] Dines Bjørner. Formal Software Development: Requirements for a CASE. In *European Symposium on Software Development Environment and CASE Technology, Königswinter, FRG, June 17–21*. Springer-Verlag, 1991.
- [109] Dines Bjørner. Formal Specification is an Experimental Science (in English). In *Intl. Conf. on Perspectives of System Informatics*, 17–21 May 1991.
- [110] Dines Bjørner. Formal Specification is an Experimental Science (in Russian). *Programirovanie*, 6:24–43, 1991.
- [111] Dines Bjørner, M. Broy, and I.V. Pottosin, editors. *Perspectives of System Informatics, I*, Lecture Notes in Computer Science, Heidelberg, Germany, May 27–30 1991. Springer, Berlin.

- [112] Jan Barzdin and Dines Bjørner, editors. *Baltic Computer Science*, volume 502 of LNCS. Springer-Verlag, 1991.
- [113] Dines Bjørner and V. Kotov, editors. *Images of Programming: Dedicated to the Memory of Andrei P. Ershov*. IFIP TC2. North-Holland Publ. Co., Amsterdam, The Netherlands, 1991.
- [114] Dines Bjørner and V. Kotov (eds.). *Images of Programming: Dedicated to the Memory of Andrei P. Ershov*. North-Holland Publ. Co., Amsterdam, The Netherlands, 11. Nov. 1991. Special issue: Theoretical Computer Science, vol. 90, no. 1.
- [115] Dines Bjørner and Larry M. Druffel. Industrial Experience in using Formal Methods. In *Intl. Conf. on Software Engineering*, pages 264–266. IEEE Computer Society Press, 1990.
- [116] D. Bjørner, Charles Anthony Richard Hoare, and H. Langmaack, editors. *VDM and Z – Formal Methods in Software Development*. Third International Symposium of VDM Europe, Kiel, FRG, April 17–21, 1990, Springer, Lecture Notes in Computer Science, Vol. 428, April 1990.
- [117] Dines Bjørner. A ProCoS Project Description. *Published in two slightly different versions: (1) EATCS Bulletin, October 1989, (2) (Ed. Ivan Plander:) Proceedings: Intl. Conf. on AI & Robotics, Strebske Pleso, Slovakia, Nov. 5–9, 1989, North-Holland, Publ., Dept. of Computer Science, Technical University of Denmark, October 1989.*
- [118] Dines Bjørner. Specification and Transformation: Methodology Aspects of the Vienna Development Method. In *TAPSOFT'89*, volume 352 of *Lab. Note*, pages 1–35. Springer-Verlag, 1989.
- [119] Dines Bjørner. Towards a Meaning of 'M' in VDM. In E.J. Neuhold and M. Paul, editors, *Formal Description of Programming Concepts*, IFIP State-of-the-Art Reports, pages 137–258. Springer-Verlag, 1991. An IFIP TC2 Seminar, Persepolis, Brasil.
- [120] Dines Bjørner. Facets of Software Development: Computer Science & Programming, Engineering & Management. *J. of Comput. Sci. & Techn.*, 4(3):193–203, 1989.
- [121] Dines Bjørner, Andrei Petrovich Ershov, and Neil Deaton Jones, editors. *Partial Evaluation and Mixed Computation. Proceedings of the IFIP TC2 Workshop, Gammel Avernæs, Denmark, October 1987*. North-Holland, 1988. 625 pages.
- [122] A.P. Ershov, Dines Bjørner, Y. Futamura, K. Furukawa, A. Haraldson, and W. Scherlis, editors. *Special Issue: Selected Papers from the Workshop on Partial Evaluation and Mixed Computation, 1987 (New Generation Computing, vol. 6, nos. 2,3)*. Ohmsha Ltd. and Springer, 1988.
- [123] Dines Bjørner. Aspects of the Rôle of Theory in the Computation Sciences and Engineering. In *Bulletin*, volume 32, pages 31–38. EATCS: European Assoc. f. Theoretical Comp. Sci., June 1987.
- [124] Dines Bjørner. Some thoughts on: Structures, Objectives and Management of Centres for Computation Sciences and Software Technology. In *Bulletin*, volume 32, pages 39–54. EATCS: European Assoc. f. Theoretical Comp. Sci., June 1987.

- [125] Dines Bjørner. Conceptual Threads of Datalogy, Informatics and Information Technology. In Bl. Sendov and I. Stanchev, editors, *Children in the Information Age: Opportunities for Creativity, Innovation and New Activities*, pages 19–36. Pergamon Press, Oxford, Dec. 1988.
- [126] Dines Bjørner. On The Use of Formal Methods in Software Development. In *Proc. of 9th International Conf. on Software Engineering, Monterey, California*, pages 17–29. IEEE, April 1987.
- [127] Dines Bjørner. The Stepwise Development of Software Development Graphs: Meta-Programming VDM Developments. In *See [128]*, volume 252 of *LNCS*, pages 77–96. Springer-Verlag, March 1987.
- [128] Dines Bjørner, Cliff B. Jones, Micheal Mac an Airchinnigh, and Erich J. Neuhold, editors. *VDM – A Formal Method at Work*. Proc. VDM-Europe Symposium 1987, Brussels, Belgium, Springer, Lecture Notes in Computer Science, Vol. 252, March 1987.
- [129] Dines Bjørner. Software Engineering and Programming: Past-Present-Future. *IPSJ: Inform. Proc. Soc. of Japan*, 8(4):265–270, 1986.
- [130] Dines Bjørner. Project Graphs and Meta-Programs: Towards a Theory of Software Development. In N. Habermann and U. Montanari, editors, *Proc. Capri '86 Conf. on Innovative Software Factories and Ada, Lecture Notes on Computer Science*. Springer-Verlag, May 1986.
- [131] Dines Bjørner. Software Development Graphs — A Unifying Concept for Software Development? In K.V. Nori, editor, *Vol. 241 of Lecture Notes in Computer Science: Foundations of Software Technology and Theoretical Computer Science*, pages 1–9. Springer-Verlag, Dec. 1986.
- [132] Dines Bjørner and Mogens Nielsen. Meta Programs and Project Graphs. In *ETW: Esprit Technical Week*, pages 479–491. Elsevier, May 1985.
- [133] Dines Bjørner and Søren Prehn. Software Engineering Aspects of VDM. In D. Ferrari, editor, *Theory and Practice of Software Technology*. North-Holland Publ.Co., Amsterdam, 1983.
- [134] Dines Bjørner. Realization of Database Management Systems. In *See [135]*, chapter 13, pages 443–456. Prentice-Hall, 1982.
- [135] Dines Bjørner and Cliff B. Jones, editors. *Formal Specification and Software Development*. Prentice-Hall, 1982.
- [136] Dines Bjørner. Rigorous Development of Interpreters and Compilers. In *See [135]*, chapter 9, pages 271–320. Prentice-Hall, 1982.
- [137] Dines Bjørner. Stepwise Transformation of Software Architectures. In *See [135]*, chapter 11, pages 353–378. Prentice-Hall, 1982.
- [138] Dines Bjørner and Hans Henrik Løvengreen. Formal Semantics of Data Bases. In *8th Int'l. Very Large Data Base Conf.*, Mexico City, Sept. 8-10 1982.

- [139] Dines Bjørner and Hans Henrik Løvengreen. Formalization of Data Models. In *Formal Specification and Software Development*, [135], chapter 12, pages 379–442. Prentice-Hall, 1982.
- [140] Dines Bjørner, editor. *Formal Description of Programming Concepts (II)*. IFIP TC-2 Work.Conf., Garmisch-Partkirschen, North-Holland Publ.Co., Amsterdam, 1982.
- [141] D. Bjørner, editor. *Formal Description of Programming Concepts (II)*. IFIP TC-2 Work. Conf., Garmisch-Partkirschen, North-Holland Publ.Co., Amsterdam, 1982.
- [142] Dines Bjørner. The VDM Principles of Software Specification and Program Design. In *TC2 Work.Conf. on Formalisation of Programming Concepts, Peniscola, Spain*, pages 44–74, LNCS Vol. 107, 1981. IFIP, Springer–Verlag.
- [143] D. Bjørner. The VDM Principles of Software Specification and Program Design. In *TC2 Work. Conf. on Formalization of Programming Concepts*, pages 44–74, LNCS Vol. 107, 1981. IFIP, Springer.
- [144] Preben Folkjær and Dines Bjørner. A Formal Model of a Generalised CSP-like Language. In S.H. Lavington, editor, *Proc. IFIP'80*, pages 95–99. North-Holland Publ.Co., Amsterdam, 1980.
- [145] Hans Henrik Løvengreen and Dines Bjørner. On a formal model of the tasking concepts in Ada. In *ACM SIGPLAN Ada Symp.*, Boston, 1980.
- [146] Dines Bjørner and Ole N. Oest. The DDC Ada Compiler Development Project. In Dines Bjørner and Ole N. Oest, editors, *Towards a Formal Description of Ada*, [152], volume 98 of LNCS, pages 1–19. Springer–Verlag, 1980.
- [147] Dines Bjørner. Formalization of Data Base Models. In Dines Bjørner, editor, *Abstract Software Specification*, [151], volume 86 of LNCS, pages 144–215. Springer–Verlag, 1980.
- [148] Dines Bjørner. Formal Description of Programming Concepts: a Software Engineering Viewpoint. In *MFCS'80, Lecture Notes Vol. 88*, pages 1–21. Springer–Verlag, 1980.
- [149] Dines Bjørner. Application of Formal Models. In *Data Bases*. INFOTECH Proceedings, October 1980.
- [150] Dines Bjørner. Experiments in Block-Structured GOTO-Modelling: Exits vs. Continuations. In Dines Bjørner, editor, *Abstract Software Specification*, [151], volume 86 of LNCS, pages 216–247. Springer–Verlag, 1980.
- [151] Dines Bjørner, editor. *Abstract Software Specifications*, volume 86 of LNCS. Springer, 1980.
- [152] Dines Bjørner and Ole N. Oest, editors. *Towards a Formal Description of Ada*, volume 98 of LNCS. Springer, 1980.
- [153] Dines Bjørner. Programming in the Meta-Language: A Tutorial. In Dines Bjørner and Cliff B. Jones, editors, *The Vienna Development Method: The Meta-Language*, [157], LNCS, pages 24–217. Springer–Verlag, 1978.

- [154] Dines Bjørner. Software Abstraction Principles: Tutorial Examples of an Operating System Command Language Specification and a PL/I-like On-Condition Language Definition. In Dines Bjørner and Cliff B. Jones, editors, *The Vienna Development Method: The Meta-Language*, [157], LNCS, pages 337–374. Springer–Verlag, 1978.
- [155] Dines Bjørner. The Vienna Development Method: Software Abstraction and Program Synthesis. In *Mathematical Studies of Information Processing*, volume 75 of LNCS. Springer–Verlag, 1979. Proceedings of Conference at Research Institute for Mathematical Sciences (RIMS), University of Kyoto, August 1978.
- [156] Dines Bjørner. The Systematic Development of a Compiling Algorithm. In Amirchahy and Neel, editors, *Le Point sur la Compilation*, pages 45–88. INRIA Publ. Paris, 1979.
- [157] Dines Bjørner and Cliff B. Jones, editors. *The Vienna Development Method: The Meta-Language*, volume 61 of LNCS. Springer, 1978. This was the first monograph on *Meta-IV*. [153, 154, 155].
- [158] Dines Bjørner. Programming Languages: Linguistics and Semantics. In *International Computing Symposium 77*, pages 511–536. European ACM, North-Holland Publ.Co., Amsterdam, 1977.
- [159] Dines Bjørner. Programming Languages: Formal Development of Interpreters and Compilers. In *International Computing Symposium 77*, pages 1–21. European ACM, North-Holland Publ.Co., Amsterdam, 1977.
- [160] Hans Bekič, Dines Bjørner, Wolfgang Henhagl, Cliff B. Jones, and Peter Lucas. A Formal Definition of a PL/I Subset. Technical Report 25.139, Vienna, Austria, 20 September 1974.
- [161] Dines Bjørner, E. F. Codd, K. Deckert, and I. L. Traiger. The GAMMA-0 Relational Data Base Interface Specifications of Objects and Operations. Techn. Report RJ-1200, IBM Research, San José, Calif., April 1973.
- [162] Dines Bjørner. Finite State Tree Computations (Part I). Research Rept. RJ-1053, IBM Research, San Joé, Calif., June 1972.
- [163] Dines Bjørner. On the Definition of Higher Level Language Machines. In *Computers and Automata*, volume 21 of *Microwave Research Inst. Symposia*. Polytechnic Inst. of Brooklyn, N.Y., USA, 1971.
- [164] Dines Bjørner. Finite State Automaton Definition of Data Communication Line Control Procedures. In *FJCC (Fall Joint Comp. Conf.)*, volume 37, pages 477–491. AFIPS, November 1970.
- [165] Dines Bjørner. Register Transfer and Transformation Machines. In *HICSS (Hawaii Int'l. Conf. Sys. Sci.)*, pages 61–63, January 1970.
- [166] Dines Bjørner. Folded Syntax- and Recursive Flowchart-Machines. In *HICSS (Hawaii Int'l. Conf. Sys. Sci.)*, pages 415–453, January 1970.
- [167] Dines Bjørner. Flowchart-Machines. *BIT*, 10(4):415–442, 1970.

- [168] Dines Bjørner. The Synthesis of Finite State Syntax Directed Top-Down and Bottom-Up Transducers. In *SWAT (Symp. Switch. & Autom. Theory)*, pages 122–132. IEEE, Oct. 1970.
- [169] Dines Bjørner. A Flow Mode, Self-Steering, Cellular Multiplier-Summation Processor. *BIT*, 10(2):125–14, 1970.
- [170] Dines Bjørner, editor. *Data Description & Access*. 1st ACM SICFIDET Workshop, ACM, 15–16 November 1970.
- [171] Dines Bjørner. *The Theory of Finite State Syntax Directed Transductions*. PhD thesis, Dept. of Comp. Sci., Techn. Univ. of Denmark, January 1969.

