Michael John Caldwell Gordon

Bibliography

Full bibliography

- Michael J. C. Gordon. Evaluation and Denotation of Pure LISP Programs: A Worked Example in Semantics. PhD thesis, University of Edinburgh, 1973.
- [2] Michael J. C. Gordon. Operational reasoning and denotational semantics. Technical Report STAN-CS-75-506, Stanford University Computer Science Department, Stanford, CA, USA, 1975.
- [3] M. Gordon, R. Milner, L. Morris, M. Newey, and C. Wadsworth. A metalanguage for interactive proof in LCF. In 5th ACM Symposium on Principles of Programming Languages, POPL '78, pages 119–130, New York, NY, USA, 1978. ACM.
- [4] Michael J. C. Gordon. On the power of list iteration. Comput. J., 22(4):376–379, 1979.
- [5] Michael J. C. Gordon, Robin Milner, and Christopher P. Wadsworth. Edinburgh LCF: A Mechanised Logic of Computation. LNCS 78. Springer, 1979.
- [6] M.J.C. Gordon. The Denotational Description of Programming Languages: An Introduction. Springer, 1979.
- [7] Michael J. C. Gordon. The denotational semantics of sequential machines. Inf. Process. Lett., 10(1):1–3, 1980.
- [8] Michael J. C. Gordon. Register transfer systems and their behaviour. In M. Breuer and R. Hartenstein, editors, *Computer Hardware Description Languages and Their Applications*, pages 23–36. North-Holland, 1981.
- [9] Mike Gordon. A model of register transfer systems with applications to microcode and VLSI correctness. Technical Report CSR-82-81, University of Edinburgh, March 1981.
- [10] M. J. C. Gordon. Representing a logic in the LCF metalanguage. In D. Néel, editor, *Tools and Notions for Program Construction: An Ad*vanced Course, pages 163–185. Cambridge University Press, 1982.
- [11] Mike Gordon. LCF_LSM, a system for specifying and verifying hardware. Technical Report UCAM-CL-TR-41, University of Cambridge, Computer Laboratory, September 1983.
- [12] Mike Gordon. Proving a computer correct with the LCF_LSM hardware verification system. Technical Report UCAM-CL-TR-42, University of Cambridge, Computer Laboratory, September 1983.

- [13] Mike Gordon. Topics in programming language theory. Handwritten lecture notes, Cambridge, October 1983.
- [14] Avra Cohn and Mike Gordon. A mechanized proof of correctness of a simple counter. Technical Report UCAM-CL-TR-94, University of Cambridge, Computer Laboratory, June 1986.
- [15] M. J. C. Gordon and J. Herbert. Formal hardware verification methodology and its application to a network interface chip. *IEE Proceedings E* - Computers and Digital Techniques, 133(5):255–270, September 1986.
- [16] Michael J. C. Gordon. Why higher-order logic is a good formalism for specifying and verifying hardware. In G. Milne and P. A. Subrahmanyam, editors, *Formal Aspects of VLSI Design*, pages 153–177. North-Holland, 1986.
- [17] Jeff Joyce, Graham Birtwistle, and Mike Gordon. Proving a computer correct in higher order logic. Technical Report UCAM-CL-TR-100, University of Cambridge, Computer Laboratory, 15 JJ Thomson Avenue, Cambridge CB3 0FD, UK, December 1986.
- [18] Michael J. C. Gordon. HOL: A proof generating system for higherorder logic. In Graham Birtwistle and P. A. Subrahmanyam, editors, *VLSI Specification, Verification and Synthesis*, pages 73–128. Kluwer Academic Publishers, 1988.
- [19] Michael J. C. Gordon. Programming Language Theory and its Implementation. Prentice-Hall, 1988.
- [20] C. A. R. Hoare and Michael J. C. Gordon. Partial correctness of C-MOS switching circuits: An exercise in applied logic. In *Third Annual* Symposium on Logic in Computer Science (LICS '88), pages 28–36. IEEE Computer Society, 1988.
- [21] Michael J. C. Gordon. Mechanizing programming logics in higher order logic. In Graham Birtwistle and P. A. Subrahmanyam, editors, *Cur*rent Trends in Hardware Verification and Automated Theorem Proving, pages 387–439. Springer, 1989.
- [22] Avra Cohn and Mike Gordon. A mechanized proof of correctness of a simple counter. In Ken McEvoy and J. V. Tucker, editors, *Theoretical Foundations of VLSI Design*, pages 65–96. Cambridge University Press, 1991.
- [23] Michael J. C. Gordon. Introduction to the HOL system. In M. Archer, J. J. Joyce, K. N. Levitt, and P. J. Windley, editors, *The HOL Theorem Proving System and its Applications*, pages 2–3. IEEE Computer Society, 1991.

- [24] Richard J. Boulton, Andrew D. Gordon, Michael J. C. Gordon, John Harrison, John Herbert, and John Van Tassel. Experience with embedding hardware description languages in HOL. In Victoria Stavridou, Thomas F. Melham, and Raymond T. Boute, editors, *Theorem Provers* in Circuit Design: Proceedings of the IFIP TC10/WG 10.2 International Conference, pages 129–156. North-Holland, 1992.
- [25] Luc J. M. Claesen and Michael J. C. Gordon, editors. Higher Order Logic Theorem Proving and its Applications. North-Holland, 1993.
- [26] Michael J. C. Gordon. A verifier and timing analyser for simple imperative programs (abstract). In Costas Courcoubetis, editor, *Computer Aided Verification, 5th International Conference, CAV '93*, LNCS 697, page 320. Springer, 1993.
- [27] Michael J. C. Gordon and Thomas F. Melham. Introduction to HOL: A Theorem Proving Environment for Higher Order Logic. Cambridge University Press, 1993.
- [28] Jonathan P. Bowen and Michael J. C. Gordon. Z and HOL. In Jonathan P. Bowen and J. Anthony Hall, editors, Z User Workshop, Workshops in Computing, pages 141–167. Springer, 1994.
- [29] Sten Agerholm and Michael J. C. Gordon. Experiments with ZF set theory in HOL and Isabelle. In E. Thomas Schubert, Phillip J. Windley, and Jim Alves-Foss, editors, *Higher Order Logic Theorem Proving and Its Applications*, LNCS 971, pages 32–45. Springer, 1995.
- [30] Jonathan Bowen and Mike Gordon. A shallow embedding of Z in HOL. Information and Software Technology, 37(5):269–276, 1995.
- [31] Michael J. C. Gordon. The semantic challenge of Verilog HDL. In 10th Annual Symposium on Logic in Computer Science, pages 136–145. IEEE Computer Society, 1995.
- [32] Michael J. C. Gordon. Set theory, higher order logic or both? In J. von Wright, J. Grundy, and J. Harrison, editors, *Theorem Proving in Higher* Order Logics: TPHOLs '96, LNCS 1125, pages 191–201. Springer, 1996.
- [33] Richard J. Boulton, Konrad Slind, Alan Bundy, and Michael J. C. Gordon. An interface between CLAM and HOL. In Jim Grundy and Malcolm Newey, editors, *Theorem Proving in Higher Order Logics: TPHOLs '98*, LNCS 1479, pages 87–104. Springer, 1998.
- [34] Konrad Slind, Michael J. C. Gordon, Richard J. Boulton, and Alan Bundy. System description: An interface between CLAM and HOL.

In Claude Kirchner and Hélène Kirchner, editors, Automated Deduction — CADE-15 International Conference, LNAI 1421, pages 134–138. Springer, 1998.

- [35] Louise A. Dennis, Graham Collins, Michael Norrish, Richard Boulton, Konrad Slind, Graham Robinson, Mike Gordon, and Tom Melham. The PROSPER toolkit. In S. Graf and M. Schwartzbach, editors, *Tools and Algorithms for the Construction and Analysis of Systems 6th International Conference, TACAS 2000*, LNCS 1785, pages 78–92. Springer, 2000.
- [36] Michael J. C. Gordon. Christopher Strachey: Recollections of his influence. Higher-Order and Symbolic Computation, 13(1/2):65–67, 2000.
- [37] Michael J. C. Gordon. From LCF to HOL: a short history. In Gordon Plotkin, Colin Stirling, and Mads Tofte, editors, *Proof, Language, and Interaction: Essays in Honor of Robin Milner*, pages 169–185. MIT Press, 2000.
- [38] Michael J. C. Gordon. Reachability programming in HOL98 using BDDs. In Mark Aagaard and John Harrison, editors, *Theorem Proving* in Higher Order Logics: TPHOLs 2000, LNCS 1869, pages 179–196. Springer, 2000.
- [39] Michael J. C. Gordon. Programming combinations of deduction and BDD-based symbolic calculation. LMS Journal of Computation and Mathematics, 5:56-76, 2002.
- [40] Michael J. C. Gordon. Puzzletool: An example of programming computation and deduction. In Victor A. Carreño, César A. Muñoz, and Sofiène Tahar, editors, *Theorem Proving in Higher Order Logics: TPHOLs 2002*, LNCS 2410, pages 214-229. Springer, 2002. Online at http://link.springer.de/link/service/series/0558/ tocs/t2410.htm.
- [41] Michael J. C. Gordon. Relating event and trace semantics of hardware description languages. *Computer J.*, 45(1):27–36, 2002.
- [42] Michael J. C. Gordon. Validating the PSL/Sugar semantics using automated reasoning. Formal Asp. Comput., 15(4):406–421, 2003.
- [43] Michael J. C. Gordon, Joe Hurd, and Konrad Slind. Executing the formal semantics of the Accellera property specification language by mechanised theorem proving. In Daniel Geist and Enrico Tronci, editors, *Correct Hardware Design and Verification Methods (CHARME)*, LNCS 2860, pages 200–215, 2003.

- [44] Michael J. C. Gordon, Warren A. Hunt Jr., Matt Kaufmann, and James Reynolds. An embedding of the ACL2 logic in HOL. In Panagiotis Manolios and Matthew Wilding, editors, Sixth International Workshop on the ACL2 Theorem Prover and its Applications, pages 40–46. ACM, 2006.
- [45] Michael J. C. Gordon, James Reynolds, Warren A. Hunt Jr., and Matt Kaufmann. An integration of HOL and ACL2. In *Formal Methods* in Computer-Aided Design, FMCAD, pages 153–160. IEEE Computer Society, 2006.
- [46] Mike Gordon, Juliano Iyoda, Scott Owens, and Konrad Slind. Automatic formal synthesis of hardware from higher order logic. *Electr. Notes Theor. Comput. Sci.*, 145:27–43, 2006.
- [47] Thomas Tuerk, Klaus Schneider, and Mike Gordon. Model checking PSL using HOL and SMV. In Eyal Bin, Avi Ziv, and Shmuel Ur, editors, Hardware and Software, Verification and Testing: Haifa Verification Conference, LNCS 4383, pages 1–15. Springer, 2006.
- [48] Magnus O. Myreen, Anthony C. J. Fox, and Michael J. C. Gordon. Hoare logic for ARM machine code. In Farhad Arbab and Marjan Sirjani, editors, *Fundamentals of Software Engineering*, pages 272–286. Springer, 2007.
- [49] Magnus O. Myreen and Michael J. C. Gordon. Hoare logic for realistically modelled machine code. In Orna Grumberg and Michael Huth, editors, *Tools and Algorithms for the Construction and Analysis of Systems*, pages 568–582. Springer, 2007.
- [50] Konrad Slind, Scott Owens, Juliano Iyoda, and Mike Gordon. Proof producing synthesis of arithmetic and cryptographic hardware. *Formal* Asp. Comput., 19(3):343–362, 2007.
- [51] Mike Gordon. Twenty years of theorem proving for HOLs past, present and future. In Otmane Aït Mohamed, César Muñoz, and Sofiène Tahar, editors, *Theorem Proving in Higher Order Logics, TPHOLs* 2008, LNCS 5170, pages 1–5. Springer, 2008.
- [52] Magnus O. Myreen, Michael J. C. Gordon, and Konrad Slind. Machinecode verification for multiple architectures: An application of decompilation into logic. In *Formal Methods in Computer-Aided Design*, FM-CAD '08, pages 20:1–20:8. IEEE Press, 2008.
- [53] Magnus O. Myreen and Michael J. C. Gordon. Transforming programs into recursive functions. *Electr. Notes Theor. Comput. Sci.*, 240:185– 200, 2009.

- [54] Magnus O. Myreen and Michael J. C. Gordon. Verified LISP implementations on ARM, x86 and PowerPC. In Stefan Berghofer, Tobias Nipkow, Christian Urban, and Makarius Wenzel, editors, *Theorem Proving* in Higher Order Logics, LNCS 5674, pages 359–374. Springer, 2009.
- [55] Magnus O. Myreen, Konrad Slind, and Michael J. C. Gordon. Extensible proof-producing compilation. In Oege de Moor and Michael I. Schwartzbach, editors, *Compiler Construction*, 18th International Conference, LNCS 5501, pages 2–16. Springer, 2009.
- [56] Anthony C. J. Fox, Michael J. C. Gordon, and Magnus O. Myreen. Specification and verification of ARM hardware and software. In David S. Hardin, editor, *Design and Verification of Microprocessor Sys*tems for High-Assurance Applications, pages 221–247. Springer, 2010.
- [57] Michael J. C. Gordon. ML: metalanguage or object language? In Paul Hudak and Stephanie Weirich, editors, *International Conference* on Functional programming, ICFP, pages 1–2. ACM, 2010.
- [58] Mike Gordon and Hélène Collavizza. Forward with Hoare. In A. W. Roscoe, Clifford B. Jones, and Kenneth R. Wood, editors, *Reflections* on the Work of C. A. R. Hoare., pages 101–121. Springer, 2010.
- [59] Michael J. C. Gordon, Matt Kaufmann, and Sandip Ray. The right tools for the job: Correctness of cone of influence reduction proved using ACL2 and HOL4. J. Autom. Reasoning, 47(1):1–16, 2011.
- [60] Magnus O. Myreen and Michael J. C. Gordon. Function extraction. Sci. Comput. Program., 77(4):505–517, 2012.
- [61] Magnus O. Myreen, Michael J. C. Gordon, and Konrad Slind. Decompilation into logic — improved. In Gianpiero Cabodi and Satnam Singh, editors, *Formal Methods in Computer-Aided Design*, *FMCAD*, pages 78–81. IEEE, 2012.
- [62] M. J. C. Gordon. Tactics for mechanized reasoning: A commentary on Milner (1984) 'the use of machines to assist in rigorous proof'. *Philo*sophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences, 373(2039), 2015.
- [63] Michael Gordon. Fifty year reunion of the class of 1966, July 2017. Online at http://www.cl.cam.ac.uk/archive/mjcg/plans/ NorthThamesGasBoard.html.
- [64] Michael Gordon. Management trainee at the North Thames Gas Board, August 2017. Online at http://www.cl.cam.ac.uk/archive/mjcg/ plans/NorthThamesGasBoard.html.

[65] Michael Gordon. Struggling with mathematics at Cambridge, August 2017. Online at http://www.cl.cam.ac.uk/archive/mjcg/plans/ CambridgeUndergraduate.html.