

Bluespec related publications of Arvind and his collaborators.

This list is far from a comprehensive bibliography of Bluespec work, it does not even include the work of other important players. However, by consulting the papers listed below and following the bibliographic references in them, one should be able to build a pretty comprehensive bibliography. It also does not our current design projects related to RISC-V processor designs and flash accelerators because we do all our hardware designs exclusively in BSV.

1. Xiaowei Shen and Arvind, "Modeling and Verification of ISA Implementations," *Proceedings of the Australasian Computer Architecture Conference*, Perth, Australia, February 1998
2. Xiaowei Shen and Arvind, "Using Term Rewriting Systems to Design and Verify Processors," Special issue of *IEEE Micro on Modeling and Validation of Microprocessors*, May/June 1999.
3. James Hoe and Arvind, "Hardware Synthesis from Term Rewriting Systems," In proceedings of *VLSI'99*, Lisbon, Portugal, December 1999.
4. James Hoe and Arvind, "Scheduling and Synthesis of Operation-Centric Hardware Descriptions," In proceedings of *ICCAD-2000*, San Jose, CA, November 2000.
5. Joseph Stoy, Xiaowei Shen and Arvind, "Proofs of Correctness of Cache-Coherence Protocols," In Proceedings of *FME2001: Formal Methods for Increasing Software Productivity*, Berlin, Germany, March 2001. (LNCS 2021)
6. Arvind, "Bluespec: A Language for hardware design, simulation, synthesis and verification", Extended Abstract, In Proceedings of *MEMOCODE 1*, ACM, June 2003
7. Daniel L. Rosenband and Arvind, "Modular Scheduling of Guarded Atomic Actions", In Proceedings of the *DAC41*, San Diego, CA, June 2004.
8. James Hoe and Arvind, "Operation-Centric Hardware Descriptions and Synthesis", *IEEE TCAD*, Vol. 23, No. 9, September 2004.
9. Arvind, Nirav Dave, R.S. Nikhil, and Daniel Rosenband, "High-level synthesis: An Essential Ingredient for Designing Complex ASICs", In Proceedings of the *ICCAD 2004*, Santa Clara, CA, November 2004.
10. Nirav Dave, Man Cheuk Ng, and Arvind, "Automatic Synthesis of Cache-Coherence Protocol Processors Using Bluespec", In Proceedings of the *MEMOCODE 3*, Verona, Italy, July 2005
11. Daniel L. Rosenband and Arvind, "Hardware Synthesis from Guarded Atomic Actions with Performance Specifications", In Proceedings of the *ICCAD 2005*, San Jose, CA, November 2005
12. Nirav Dave, Michael Pellauer, Steve Gerding and Arvind, "802.11a Transmitter: A Case Study in Microarchitectural Exploration", In Proceedings of the *MEMOCODE 4*, Napa, CA, July 2006
13. Man C. Ng, Murali Vijayaraghavan, Gopal Raghavan, Nirav Dave, Jamey Hicks, Arvind, "From WiFi to WiMAX: Techniques for IP Reuse across Different OFDM Protocols", In Proceedings of the *MEMOCODE 5*, Nice, France, May 2007
14. Nirav Dave, Arvind and Michael Pellauer, "Scheduling as Rule Composition", In Proceedings of the *MEMOCODE 5*, Nice, France, May 2007
15. Arvind, Nirav Dave, and Michael Katelman, "Getting Formal Verification into Design Flow", In Proceedings of *Formal Methods 15 (FM 15)*, LNCS 5014, Turku, Finland. May 26-30, 2008

16. Kermin Elliott Fleming, Chun-Chieh Lin, Nirav Dave, Arvind, Gopal Raghavan, Jamey Hicks, "Design Exploration in H.264", In Proceedings of the *MEMOCODE 6*, Anaheim, CA June 2008
17. Michal Karczmarek and Arvind, "Synthesis from Multi-Cycle Atomic Actions as a Solution to the Timing Closure Problem", In Proceedings of *ICCAD 2008*, Santa Clara, CA, November 2008
18. Muralidaran Vijayaraghavan, and Arvind, "Bounded Dataflow Networks and Latency-Insensitive Circuits", In Proceedings of the *MEMOCODE 7*, MIT, Cambridge, MA July 13-15 2009
19. Nirav Dave, Man Cheuk Ng, Michael Pellauer, and Arvind "A Design Flow Based on Modular Refinement", In Proceedings of the *MEMOCODE 8*, Grenoble, France, July 24-28, 2010
20. Abhinav Agarwal, Man Cheuk Ng, and Arvind "A Comparative Evaluation of High-Level Hardware Synthesis Using Reed-Solomon Decoder", *IEEE ESL Journal*, Vol 2, Issue 3, September 2010.
21. Man Cheuk Ng, Kermin Elliott Fleming, Mythili Vutukuru, Samuel Gross, Arvind, and Hari Balakrishnan, "Layering for Cross-Layer Wireless Protocols", In Proceedings of Architectures for Networking and Communications Systems (ANCS 2010), San Diego, CA, October 25-26, 2010. (*Best paper award*)
22. Man Cheuk Ng, Kermin Elliott Fleming and Arvind, "WiLIS: Architectural Modeling of Wireless Systems", In Proceedings of International Symposium on Performance Analysis of Systems and Software (ISPASS 2011), Austin, TX, April 10-12, 2011
23. Nirav Dave, Michael Katelman, Myron King, Arvind, and Jose Meseguer, "Verification of Microarchitectural Refinements in Rule-based Systems", In Proceedings of the *MEMOCODE 9*, Cambridge, UK, July 11-13, 2011
24. K. Fleming, M. Adler, M. Pellauer, A. Parashar, Arvind and J. Emer, "Leveraging Latency-Insensitivity to Ease Multiple FPGA Design", in Proceedings of the International Symposium on Field-Programmable Gate Arrays (FPGA 2012), Monterey, CA, February 22-24, 2012
25. Myron King, Nirav Dave, and Arvind, "Automatic Generation of Hardware/Software Interfaces" in Proceedings of Architectural Support for Programming Languages and Operating Systems (ASPLOS 2012), London, UK, March 5-7, 2012
26. Asif Khan, Muralidaran Vijayaraghavan, Silas Boyd-Wickizer and Arvind, "Fast and Cycle-Accurate Modeling of a Multicore Processor", in Proceedings of International Symposium on Performance Analysis of Systems and Software (ISPASS 2012), New Brunswick, NJ, April 1-3, 2012
27. Asif Khan, Muralidaran Vijayaraghavan and Arvind, "A general technique for deterministic model-cycle-level debugging" In Proceedings of the *MEMOCODE 10*, Arlington, VA, July 16-17, 2012
28. Myron King, Asif Khan, Abhinav Agarwal, Oriol Arcas, Arvind, "Automatic Generation of Hardware/Software Communication in FPGA Accelerated Applications", in Proceedings of FPL13, Porto, Portugal, September 1-3, 2013
29. Muralidaran Vijayaraghavan, Nirav Dave and Arvind, "Modular Compilation of Guarded Atomic Actions" In Proceedings of the *MEMOCODE 11*, Portland, OR, October 18-20, 2013
30. Abhinav Agarwal and Arvind, "Leveraging rule-based designs for automatic power domain partitioning", In Proceedings of *ICCAD 2013*, Santa Clara, CA, November 18-20, 2013

31. Agarwal, Abhinav and Hassanieh, Haitham and Abari, Omid and Hamed, Ezz and Katabi, Dina and Arvind, “High-Throughput Implementation of a Million-Point Sparse Fourier Transform”, in Proceedings of 24th International Conference on Field Programmable Logic and Applications (FPL 2014), Munich, Germany, September 1-3, 2014
32. Michal Karczmarek, Arvind and Muralidaran Vijayaraghavan, “A new synthesis procedure for atomic rules containing multi-cycle function blocks”, In Proceedings of the MEMOCODE 12, Lausanne, Switzerland, October 19-21, 2014
33. Muralidaran Vijayaraghavan, Adam Chlipala, Arvind, and Nirav Dave, “Modular Deductive Verification of Multiprocessor Hardware Designs”, 27th International Conference on Computer Aided Verification (CAV), San Francisco, CA, July 21-24, 2015
34. Joonwon Choi, Muralidaran Vijayaraghavan, Benjamin Sherman, Adam Chlipala, Arvind, “Kami: A Platform for High-Level Parametric Hardware Specification and its Modular Verification”, International Conference on Functional Programming, Oxford, UK, September 3-9, 2017