

List of Publications 2013

Staff : **ABHIK ROYCHOUDHURY**
Department : **COMPUTER SCIENCE**

Journal Tiering : **UNIVERSITY**

ARTICLE IN JOURNAL

INTERNATIONAL REFEREED

TIER 1 - PREMIUM

PUBLISHED

1. SUDIPTA, C and A Roychoudhury*, "Scalable and Precise Refinement of Cache Timing Analysis via Path Sensitive Verification". *Real-Time Systems*, 49, no. 4 (2013). (Netherlands). (Rank 1 Journal).
2. Ju*, L, B.K. Huynh, A Roychoudhury and S Chakraborty, "Performance Debugging of Esterel Specifications". *Real-Time Systems*, 48, no. 5 (2012): 570-600. (Netherlands). (Rank 1 Premier Journal).
3. Liang, Y, H DING, T Mitra*, A Roychoudhury, Y Li and V Suhendra, "Timing Analysis of Concurrent Programs running on Shared Cache Multi-cores". *Real-Time Systems*, 48, no. 6 (2012): 638-680. (Netherlands). (Rank 1 Journal).
4. QI*, D, A Roychoudhury*, Z LIANG and K Vaswani, "DARWIN: An approach for Debugging Evolving Programs". *ACM Transactions on Software Engineering and Methodology*, 21, no. 3 (2012). (United States). (Rank 1 Premier Journal).
5. Roychoudhury*, A, A Goel and B Sengupta, "Symbolic Message Sequence Charts". *ACM Transactions on Software Engineering and Methodology*, 21, no. 2 (2012). (United States). (Rank 1 Journal).
6. Suhendra*, V, A Roychoudhury and T Mitra, "Scratchpad allocation for concurrent embedded software". *ACM Transactions on Programming Languages and Systems*, 32, no. 4 (2010). (United States). (Rank 1 Journal).
7. Goel, A, A Roychoudhury and P S Thiagarajan, "Interacting Process Classes". *ACM Transactions on Software Engineering and Methodology*, 18, no. 4 (2009). (United States). ((Rank 1 Journal)).
8. Chakraborty, S., T Mitra, A Roychoudhury and L Thiele, "Cache-aware Timing Analysis of Streaming Applications". *Real-Time Systems*, 41, no. 1 (Special Issue) (2009): 52-85. (Netherlands). (Rank 1 Journal, Special issue on best papers from ECRTS 2007).

9. WANG*, T and A Roychoudhury, "Dynamic Slicing on Java Bytecode Traces". *ACM Transactions on Programming Languages and Systems*, 30, no. 2 (2008). (United States). (RANK 1 Journal).
[Supported by A*STAR grant R252-000-194-305)].
10. Huynh, T.Q. and A Roychoudhury*, "Memory Model Sensitive Bytecode Verification". *Formal Methods in System Design*, 31, no. 3 (2007): 281-305. (United States). ((Rank 1 Journal).).
11. Li, X, A Roychoudhury* and T Mitra*, "Modeling Out-of-order Processors for WCET Analysis". *Real-Time Systems*, 34, no. 3 (2006): 195-227. (Netherlands). (Rank 1 Premier Journal).
12. Li, X, T Mitra* and A Roychoudhury*, "Modeling Control Speculation for Timing Analysis". *Real-Time Systems*, 29, no. 1 (2005): 27-58. (Netherlands). (Rank 1 Premier Journal).
13. Roychoudhury*, A, K.N. Kumar, C.R. Ramakrishnan and I.V. Ramakrishnan, "An Unfold/Fold Transformation Framework for Definite Logic Programs". *ACM Transactions on Programming Languages and Systems*, 26, no. 3 (2004). (United States). (RANK 1 Journal).

ACCEPTED FOR PUBLICATION

14. Kelter*, T, H Falk, P Marwedel*, C SUDIPTA and A Roychoudhury, "Static Analysis of Multi-core TDMA Resource Arbitration Delays". *Real-Time Systems*, (2013). (Netherlands). ((Rank 1 Journal)).
15. QI*, D, H D T Nguyen and A Roychoudhury, "Path Exploration based on Symbolic Output". *ACM Transactions on Software Engineering and Methodology*, (2013). (United States). (Rank 1 Journal).

TIER 3 - REPUTABLE

PUBLISHED

16. Li, Xianfeng, Yun Liang, T Mitra* and A Roychoudhury*, "Chronos: A Timing Analyzer for Embedded Software". *Science of Computer Programming*, 69, no. 1-3 (2007): 56-67. (Netherlands). (RANK 2 journal from School of Computing (SoC). The ranking shown in the NUS system reflects an older ranking and is not updated.).
17. Roychoudhury*, A, K.N. Kumar, C.R. Ramakrishnan and I.V. Ramakrishnan, "Beyond Tamaki-Sato style Unfold/fold Transformations of Normal Logic Programs". *International Journal of Foundations of Computer Science*, 13, no. 3 (2002): 387-403. (Singapore). (RANK 3 JOURNAL).

TIER 4 - OTHERS

PUBLISHED

18. Chakraborty, S, Y LIANG, L JU, T Mitra* and A Roychoudhury, "Cache aware optimization of BAN applications". *Design Automation for Embedded Systems*, 13, no. 3 (Special Issue on Best Papers from ESWeek 2008) (2009): 159-178. (Netherlands). (INVITED PAPER -- Special issue on best papers from ESWEEK 2008).

NOT TIERED

ACCEPTED FOR PUBLICATION

19. SUDIPTA*, C, A Roychoudhury, L K CHONG, T Kelter, P Marwedel and H Falk, "A Unified WCET Analysis Framework for Multi-core Platforms". *ACM Transactions in Embedded Computing Systems*, (2013). (United States).

NOT CLASSIFIED

TIER 2 - LEADING

PUBLISHED

20. Roychoudhury*, A and I.V. Ramakrishnan, "Inductively Verifying Invariant Properties of Parameterized Systems". *Automated Software Engineering*, 11, no. 2 (2004): 101-139. (United States). (RANK 2 Journal.).

@ - indicates journal classification is based on the proposed classification of the author(s).

CONFERENCE PAPER

INTERNATIONAL

ORAL PRESENTATION

PUBLISHED

1. BOEHME*, M, C D S O BRUNO and A Roychoudhury, "Regression Tests to Expose Change Interaction Errors". *Proceedings of ESEC-FSE 2013* (2013). New York: ACM. (joint meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC-FSE), 18 - 26 Aug 2013, St. Petersburg, Russia) (Rank 1 conference).
2. LEE, J, D QI, S H TAN and A Roychoudhury, "Expressing and Checking Intended Changes via Software Change Contracts". *Proceedings of ISSTA 2013* (2013). New York: ACM. (International Symposium on Software Testing and Analysis (ISSTA), 15 - 18 Jul 2013, Lugano, Switzerland) (Rank 1 Conference).

3. SUDIPTA*, C, L K CHONG and A Roychoudhury*, "Program Performance Spectrum". *Proceedings of LCTES 2013* (2013). New York: ACM. (Languages Compilers and Tools for Embedded Systems (LCTES), 20 - 21 Jun 2013, Seattle, Washington, United States) (Unranked conference).
4. BOEHME*, M, C D S O BRUNO and A Roychoudhury, "Partition-based Regression Verification". *Proceedings of ICSE 2013* (2013). New York: ACM/IEEE. (International Conference on Software Engineering, 18 - 26 May 2013, San Francisco, United States) (Rank 1 conference).
5. Roychoudhury, A, H D T Nguyen, D QI and S Chandra, "SemFix: Program Repair via Semantic Analysis". *Proceedings of ICSE 2013* (2013). New York: IEEE/ACM. (International Conference on Software Engineering (ICSE), 18 - 26 May 2013, San Francisco, United States) (Rank 1 Conference).
6. BANERJEE, A, C SUDIPTA and A Roychoudhury, "Precise Micro-architectural modeling for WCET analysis via AI+SAT". *Proceedings of IEEE Real-Time and Embedded Technology and Applications Symposium* (2013). New York: IEEE. (IEEE Real-time and Embedded Technology and Applications Symposium (RTAS) 2013, 9 - 11 Apr 2013, Philadelphia, United States) (Rank 2 conference).
7. LEE*, J, R Robby, X Deng and A Roychoudhury, "Past Expression: Encapsulating Pre-states at Post-conditions by Means of AOP". *Proceedings of AOSD 2013* (2013). New York: ACM. (International Conference on Aspect Oriented Software Development (AOSD) 2013, 24 - 29 Mar 2013, Fukuoka, Japan) (Unranked conference).
8. QI, D, J LEE and A Roychoudhury*, "Software Change Contracts". *Proceedings of SIGSOFT FSE 2012* (2012). New York: ACM. (ACM SIGSOFT 2012, 11 - 16 Nov 2012, Cary, North Carolina, United States)
9. QI*, D, W Sumner, F Qin, M Zheng, X Zhang and A Roychoudhury, "Modeling Software Execution Environment". *Proceedings of WCRE 2012* (2012). New York: IEEE. (19th IEEE Working Conference on Reverse Engineering (WCRE), 15 - 18 Oct 2012, Kingston, Ontario, Canada) (Rank 2 conference).
10. Ju, L, B Sengupta and A Roychoudhury*, "Tenant Onboarding in Evolving Multi-tenant Software-as-a-Service Systems". *Proceedings of ICWS 2012* (2012). New York: IEEE. (IEEE International Conference on Web Services (ICWS), 24 - 29 Jun 2012, Honolulu, United States) (Rank 2 conference).
11. SANDEEP, K, S C Khoo, A Roychoudhury and D Lo, "Inferring Class Level Specifications for Distributed Systems". *Proceedings of ICSE 2012* (2012). New York: ACM. (International Conference on Software Engineering, 4 - 9 Jun 2012, Zurich, Switzerland) (Rank 1 Conference).

12. CHATTOPADHYAY*, S C, L K CHONG, A Roychoudhury, T Kelter, P Marwedel and H Falk, "A Unified WCET Analysis Framework for Multi-core Platforms". *Proceedings of RTAS 2012* (2012). New York: IEEE. (18th IEEE Real-time and Embedded Technology and Applications Symposium (RTAS) 2012, 17 - 19 Apr 2012, Beijing, China) (Rank 2 Conference).
13. Blackham*, B, S C CHATTOPADHYAY, Y Shi, A Roychoudhury and G Heiser, "Timing Analysis of a Protected Operating System Kernel". *IEEE Real-time Systems Symposium (RTSS)* (2011). Afghanistan. (IEEE Real-time Systems Symposium (RTSS), 29 Nov - 2 Dec 2011, Vienna, Austria) (Rank 1 conference).
14. CHATTOPADHYAY*, S C and A Roychoudhury*, "Scalable and Precise Refinement of Cache Timing Analysis via Model Checking". *Proceedings of RTSS 2011* (2011). New York: IEEE. (IEEE Real-time Systems Symposium (RTSS), 29 Nov - 2 Dec 2011, Vienna, Austria) (Rank 1 conference [Best paper award nomination]).
15. QI, D, M.N. Ngo, T SUN and A Roychoudhury*, "Locating Failure Inducing Environment Changes". *Proceedings of PASTE* (2011). New York: ACM. (10th ACM SIGPLAN-SIGSOFT Workshop on Program Analysis for Software Tools and Engineering (PASTE), 4 - 5 Sep 2011, Szeged, Hungary) ((Unranked)).
16. QI, D, H NGUYEN and A Roychoudhury*, "Path Exploration based on Symbolic Output". *Proceedings of ESEC-FSE 2011* (2011). New York: ACM. (ACM SIGSOFT Symposium on the Foundations of Software Engineering (FSE), 4 - 9 Sep 2011, Szeged, Hungary) (Rank 1 conference).
17. Kelter*, T, H Falk, P Marwedel, S C CHATTOPADHYAY and A Roychoudhury, "Bus-Aware Multicore WCET Analysis through TDMA Offset Bounds". *Proceedings of ECRTS 2011* (2011). New York: ACM. (Euromicro Conference on Real-time Systems (ECRTS), 7 Jun - 7 Aug 2011, Porto, Portugal) (Unranked).
18. Sengupta, B and A Roychoudhury*, "Engineering Multi-tenant Software-as-a-Service Systems". *Proceedings of PESOS 2011* (2011). New York: ACM. (Principles of Engineering Service Oriented Systems (PESOS), 23 - 24 May 2011, Hawaii, United States) (Unranked).
19. KUMAR, S, S C Khoo, A Roychoudhury and D Lo, "Mining Message Sequence Graphs". *Processings of ICSE 2011* (2011). New York: ACM. (International Conference on Software Engineering, 21 - 28 May 2011, Hawaii, Honolulu, United States) ((Rank 1 Conference)).
20. CHATTOPADHYAY*, S C and A Roychoudhury, "Static Bus Schedule aware Scratchpad Allocation in Multiprocessors". *Proceedings of LCTES 2011* (2011). New York: ACM. (ACM SIGPLAN/SIGBED Conference on Languages, Compilers and Tools for Embedded Systems (LCTES) 2011., 12 - 15 Apr 2011, Chicago, United States)
21. HUYNH, B K, L Ju and A Roychoudhury*, "Scope-aware Data Cache Analysis for WCET Estimation". *Proceedings of RTAS 2011* (2011). New York: IEEE. (17th IEEE Real-time and Embedded Technology and Applications Symposium (RTAS) 2011, 11 - 15 Apr 2011, Chicago, United States) ((Rank 2 conference)).

22. ANSUMAN, B, A Roychoudhury*, A H JOHANNES and Z LIANG, "Golden Implementation Driven Software Debugging". *Proceedings of FSE 2010* (2010). New York: ACM. (International Symposium on Foundations of Software Engineering (FSE), 7 - 11 Nov 2010, Santa Fe, New Mexico, United States) (Rank 1 CONFERENCE).
23. QI*, D, A Roychoudhury and Z LIANG, "Test Generation to Expose Changes in Evolving Programs". *Proceedings of ASE 2010* (2010). New York: ACM. (25nd IEEE/ACM International Conference on Automated Software Engineering (ASE) 2010., 20 - 24 Sep 2010, Antwerp, Belgium) (Rank 2).
24. CHATTOPADHYAY*, S C, A Roychoudhury and T Mitra, "Modeling Shared Cache and Bus in Multi-cores for Timing Analysis". *Proceedings of SCOPES 2010* (2010). New York: ACM. (13th International Workshop on Software and Compilers for Embedded Systems (SCOPES), 28 - 29 Jun 2010, Germany)
25. JU*, L, B K HUYNH, A Roychoudhury and S Chakraborty, "Timing Analysis of Esterel Programs on General-purpose Multiprocessors". *Proceedings of DAC 2010* (2010). New York: ACM. (ACM Design Automation Conference (DAC), 13 - 18 Jun 2010, Anaheim, United States) (Rank 1 conference).
26. LI, Y, S VIVY, Y LIANG, T Mitra and A Roychoudhury, "Timing Analysis of Concurrent Programs Running on Shared Cache Multi-cores". *Proceedings of RTSS 2009* (2009). New York: IEEE Press. (IEEE Real-time Systems Symposium (RTSS), 1 - 4 Dec 2009, Washington DC, United States) ((Rank 1 conference)).
27. SUDIPTA*, C and A Roychoudhury, "Unified Cache Modeling for WCET Analysis and Layout Optimizations". *Proceedings of RTSS 2009* (2009). New York: IEEE Press. (IEEE Real-time Systems Symposium (RTSS), 1 - 4 Dec 2009, Washington DC, United States) ((Rank 1 conference)).
28. Sun*, J., Y LIU*, S LIU*, A Roychoudhury* and J S Dong*, "Fair Model Checking with Process Counter Abstraction". *FM 2009* (2009). New York: Springer. (16th International Symposium on Formal Methods (FM 2009), 2 - 6 Nov 2009, Eindhoven, Netherlands) (rank-1).
29. QI, D, A Roychoudhury, Z LIANG and K Vaswani, "DARWIN: An approach for Debugging Evolving Programs". *Proceedings of ESEC-FSE 2009* (2009). New York: ACM. (Foundations of Software Engineering (FSE), 24 - 28 Aug 2009, Amsterdam, Netherlands) (ACM SIGSOFT Distinguished Paper Award, Rank 1 Conference).
30. JU*, L, B K HUYNH, S Chakraborty and A Roychoudhury, "Context-sensitive Timing Analysis of Esterel Programs". *Proceedings of DAC 2009 (rank 1)* (2009). New York: ACM. (Design Automation Conference, 28 - 30 Jul 2009, San Francisco, United States)
31. Dang*, T.N., A Roychoudhury, T Mitra and P Mishra, "Generating Test Programs to Cover Pipeline Interactions". *Proceedings of DAC 2009* (2009). New York: ACM. (Design Automation Conference (DAC), 28 - 31 Jul 2009, San Francisco, United States) (Best paper award nomination, Rank 1 Conference).

32. De, A, A Roychoudhury* and D D'Souza, "Java Memory Model aware Software Validation". *Proceedings of PASTE 2008* (2008). New York: ACM. (Program Analysis for Software Tools and Engineering, 9 - 10 Nov 2008, Atlanta, United States)
33. GUO, L and A Roychoudhury, "Debugging Statecharts via Model-Code Traceability". *International Symposium on Leveraging Applications of Formal Methods, Verification and Validation* (2008). Germany: Springer. (Invited paper) (International Symposium on Leveraging Applications of Formal Methods, Verification and Validation, 13 - 15 Oct 2008, Chalkidiki, Greece) (Unranked Conference).
34. VIVY*, S, A Roychoudhury and T Mitra, "Scratchpad Allocation for Concurrent Embedded Software". *ACM Intl. Conference on Hardware/Software Codesign and System Synthesis (CODES+ISSS) 2008* (2008). New York: ACM Press. (ACM Intl. Conference on Hardware/Software Codesign and System Synthesis (CODES+ISSS) 2008, 19 - 24 Oct 2008, Atlanta, United States) (Rank 2 conference).
35. LIANG, Y, L JU, S. Chakraborty, T Mitra and A Roychoudhury, "Cache-aware Optimization of BAN Applications". *ACM International Conference on Hardware Software Codesign and System Synthesis (CODES+ISSS) 2008* (2008). New York: ACM Press. (ACM International Conference on Hardware Software Codesign and System Synthesis (CODES+ISSS) 2008, 19 - 24 Oct 2008, Atlanta, United States) (Rank 2 Conference).
36. JU, L, B K HUYNH, A Roychoudhury and S. Chakraborty, "Performance Debugging of Esterel Specifications". *ACM International Conference on Hardware Software Codesign and System Synthesis (CODES+ISSS) 2008* (2008). New York: ACM. (ACM International Conference on Hardware Software Codesign and System Synthesis (CODES+ISSS) 2008, 19 - 24 Oct 2008, Atlanta, United States) ((Rank 2 conference)).
37. JU, L, A Roychoudhury and S. Chakraborty, "Schedulability analysis of MSC-based system models". *Proceedings of RTAS 2008* (2008). New York: IEEE. (IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS), 22 - 24 Apr 2008, St. Louis, MO, United States) ((Rank 1 Conference)).
38. Roychoudhury*, A, G ANKIT and B Sengupta, "Symbolic Message Sequence Charts". *Proceedings of ACM SIGSOFT Symposium on Foundations of Software Engineering (FSE) 2007*, ed. Antonia Bertolino (2007). New York: ACM. (ACM SIGSOFT Foundations of Software Engineering (FSE), 3 - 7 Sep 2007, Dubrovnik, Croatia) ((Rank 1 Conference)).
39. Liang, Y, A Roychoudhury* and T Mitra*, "Timing Analysis of Body Area Network Application". *7th International Workshop on Worst-Case Execution Time Analysis (WCET)* (2007). NJ: IEEE. (7th International Workshop on Worst-Case Execution Time Analysis (WCET), 3 Jul 2007, Scuola Superiore Sant'Anna, Pisa, Italy)
40. WANG*, T and A Roychoudhury, "Hierarchical Dynamic Slicing". *Proceedings of International Symposium on Software Testing and Analysis 2007* (2007). New York: ACM. (ACM International Symposium on Software Testing and Analysis (ISSTA), 9 - 12 Jul 2007, London, United Kingdom) ([Supported by A*STAR grant R252-000-194-305] Unranked conference).

41. Chakraborty, S., T Mitra, A Roychoudhury, L Thiele, U Bordoloi and C Derdiyok, "Cache-aware Timing Analysis of Streaming Applications". *19th Euromicro Conference on Real-time Systems (ECRTS) 2007* (2007). NJ: IEEE. (19th Euromicro Conference on Real-time Systems (ECRTS), 4 - 6 Jul 2007, Scuola Superiore Sant'Anna, Pisa, Italy) (NOT RANKED YET).
42. Lei*, J, S. Chakraborty and A Roychoudhury, "Accounting for Cache-Related Preemption Delay in Dynamic Priority Schedulability Analysis". *Proceedings of DATE'07* (2007). Washington DC: IEEE Press. (Design Automation and Test in Europe (DATE), 16 - 20 Apr 2007, Nice, France) ((Rank 2 Conference)).
43. Li*, X, A Roychoudhury, T Mitra, P Mishra and X Cheng, "A Retargetable Software Timing Analyzer using Architecture Description Language". *Asia and South Pacific Design Automation Conference* (2007): 396-401. NJ: IEEE. (Asia and South Pacific Design Automation Conference (ASP-DAC), 23 - 26 Jan 2007, Pacifico Yokohama, Yokohama, Japan) (NOT RANKED YET).
44. ANKIT*, G and A Roychoudhury*, "Synthesis and Traceability of Scenario-based Executable Models". *Proceedings of IEEE International Symposium on Leveraging Applications of Formal Methods, Verification and Validation* (2006). Washington DC: IEEE Press. (International Symposium on Leveraging Applications of Formal Methods, Verification and Validation (ISoLA), 15 - 19 Nov 2006, Coral Beach, Paphos, Cyprus) ((Unranked Conference)).
45. Huynh*, Q T and A Roychoudhury*, "A Memory Model Sensitive Checker for C#". *Proceedings of 14th Formal Methods Symposium*, ed. Jayadev Misra and Tobias Nipkow (2006). Berlin: Springer. (Formal Methods Symposium (FM), 23 - 25 Aug 2006, Hamilton, Ontario, Canada) ([RANK 1 CONFERENCE]
[Partially Supported by A*STAR grant R252-000-194-305]).
46. VIVY, S, T Mitra*, A Roychoudhury* and T Chen, "Efficient Detection and Exploitation of Infeasible Paths for Software Timing Analysis". *Proceedings of 43rd Design Automation Conference* (2006): 358-363. NY: ACM. (Design Automation Conference (DAC), 24 - 27 Jul 2006, San Francisco, California, United States) (RANK 1 CONFERENCE).
47. ANKIT, G, S Meng, A Roychoudhury* and P S Thiagarajan*, "Interacting Process Classes". *Proceedings of 28th International Conference on Software Engineering*, ed. Dieter Rombach and Mary Lou Soffa (2006). New York: ACM. (International Conference on Software Engineering (ICSE), 24 - 26 Mar 2006, Shanghai, China) ((RANK 1 CONFERENCE)
[Supported by A*STAR grant R252-000-194-305]).
48. GUO, L, A Roychoudhury* and T Wang, "Accurately Choosing Execution Runs for Software Fault Localization". *Proceedings of Compiler Construction Conference*, ed. Alan Mycroft and Andreas Zeller (2006). Berlin: Springer. (Compiler Construction (CC), 30 - 31 Mar 2006, Vienna, Austria) ((Rank 2 Conference)
[Supported by project R252-000-194-305 from A*STAR]).

49. Chakraborty, B, T Chen*, T Mitra and A Roychoudhury, "Handling Constraints in Multi-objective GA for Embedded System Design". *19th IEEE International Conference on VLSI Design (VLSI)* (2006): 305-310. NJ: IEEE. (19th IEEE International Conference on VLSI Design (VLSI), 3 - 7 Jan 2006, Hyderabad, Andhra Pradesh, India) (NOT RANKED YET).

50. Roychoudhury*, A, T Mitra and H S Negi, "Analyzing Loop Paths for Execution Time Estimation". *2nd International Conference on Distributed Computing and Internet Technology*. Lecture Notes in Computer Science, vol. 3347 (2005): 458-469. Berlin: Springer. (2nd International Conference on Distributed Computing and Internet Technology, 22 - 24 Dec 2005, Kalinga Institute of Industrial Technology, Bhubaneswar, India) (NOT RANKED YET).

51. VIVY, S, T Mitra*, A Roychoudhury* and T CHEN, "WCET Centric Data Allocation to Scratchpad Memory". *Proceedings of 26th IEEE Real-Time Systems Symposium* (2005): 223-232. NJ: IEEE Press. (IEEE Real-Time Systems Symposium (RTSS), 5 - 8 Dec 2005, Miami, Florida, United States) (RANK 1 CONFERENCE).

52. Roychoudhury*, A, P S Thiagarajan*, T.A. Tran and V Zvereva*, "Automatic Generation of Protocol Converters from Scenario-based Specifications". *Proc. of RTSS 2004* (2005). New York: IEEE Press. (25th IEEE International Real-time Systems Symposium (RTSS 2004), 5 - 8 Dec 2004, Lisbon, Portugal)

53. Wang, T and A Roychoudhury*, "Automated Path Generation for Software Fault Localization". *ACM/IEEE International Conference on Automated Software Engineering (ASE) 2005* (2005). Boston: ACM. (ACM/IEEE International Conference on Automated Software Engineering (ASE) 2005, 7 - 11 Nov 2005, Long Beach, California, United States) (RANK 2 Conference
[Supported by A*STAR grant R252-000-194-305]).

54. Li, X, A Roychoudhury* and T Mitra*, "Modeling Out-of-Order Processors for Software Timing Analysis". *25th Real-Time Systems Symposium (RTSS)* (2004): 92-103. NJ: IEEE CS Press. (25th IEEE International Real-Time Systems Symposium, 5 - 8 Dec 2004, Lisbon, Portugal) (RANK 1 CONFERENCE).

55. Mitra*, T, A Roychoudhury* and Q Shen, "Impact of Java Memory Model on Out-of-Order Multiprocessors". *International Conference on Parallel Architectures and Compilation Techniques (PACT)* (2004): 99-110. NJ: IEEE CS Press. (International Conference on Parallel Architectures and Compilation Techniques, 29 Sep - 3 Oct 2004, Antibes Juan-les-Pins, France) (RANK 1 CONFERENCE).

56. Wang, T, A Roychoudhury*, R H C Yap* and S C Choudhary, "Symbolic Execution of Behavioral Requirements". *International Symposium on Practical Applications of Declarative Languages (PADL)*. LNCS, vol. 3057 (2004). Dallas: Springer Verlag. (International Symposium on Practical Applications of Declarative Languages (PADL), 18 - 19 Jun 2004, Dallas, United States) (RANK 2 CONFERENCE).

57. Li, X, H S Negi, T Mitra* and A Roychoudhury, "Design Space Exploration of Caches Using Compressed Traces". *Annual International Conference on Supercomputing (ICS)* (2004): 116-125. NY: ACM Press. (18th Annual ACM International Conference on Supercomputing, 26 Jun - 1 Jul 2004, Saint-Malo, France) (RANK 2 CONFERENCE).
58. Wang*, T and A Roychoudhury, "Using Compressed Bytecode Traces for Slicing Java Programs". *International Conference on Software Engineering (ICSE)* (2004). ACM. (International Conference on Software Engineering (ICSE), 23 - 28 May 2004, Edinburgh, United Kingdom) (RANK 1 CONFERENCE).
59. Roychoudhury, A, "Depiction and Playout of Multi-threaded Program Executions". *IEEE International Conference on Automated Software Engineering (ASE) 2003* (2003). IEEE Press. (IEEE International Conference on Automated Software Engineering (ASE) 2003, 8 Oct 2003) (RANK 2 CONFERENCE).
60. Negi, H S, T Mitra* and A Roychoudhury*, "Accurate Estimation of Cache-related Preemption Delay". *CODES-ISSS Merged Conference* (2003): 201-206. NY: ACM Press. (CODES-ISSS Merged Conference, 1 - 3 Oct 2003, Marriott Hotel, Newport Beach, California, United States) (RANK 2 CONFERENCE).
61. Li, X, T Mitra* and A Roychoudhury*, "Accurate Timing Analysis by Modeling Caches, Speculation and their Interaction". *ACM/IEEE Design Automation Conference (DAC)* (2003): 466-471. NY: ACM Press. (ACM/IEEE Design Automation Conference (DAC), 2 - 6 Jun 2003, Anaheim Convention Center, Anaheim, California, United States) (RANK 1 CONFERENCE).
62. Goel, A, A Roychoudhury* and T Mitra*, "Compactly Representing Parallel Program Executions". *ACM International Symposium on Principles and Practice of Parallel Programming (PPoPP)* (2003): 191-202. NY: ACM Press. (ACM International Symposium on Principles and Practice of Parallel Programming (PPoPP), 11 - 13 Jun 2003, Town and Country Resort and Convention Center, San Diego, California, United States) (RANK 1 CONFERENCE).
63. Roychoudhury*, A, T Mitra* and S R Karri, "Using Formal Techniques to Debug the AMBA System-on-Chip Bus Protocol". *Design Automation and Test in Europe Conference & Exhibition (DATE)* (2003): 828-833. NJ: IEEE Computer Society Press. (Design Automation and Test in Europe Conference & Exhibition (DATE), 3 - 7 Mar 2003, Munich, Germany) (RANK 2 CONFERENCE).
64. Roychoudhury*, A and P S Thiagarajan*, "Communicating Transaction Processes". *Proceedings of the 3rd IEEE International Conference on Application of Concurrency in System Design (ACSD'03)* (2003): 157-166. New York: IEEE Press. (Proceedings of the 3rd IEEE International Conference on Application of Concurrency in System Design (ACSD'03), 1 Jan 2003, Guimaraes, Guimaraes, Portugal)
65. Roychoudhury, A, "Formal Reasoning about Hardware and Software Memory Models". *Proceedings of ICFEM 2002*. Lecture Notes in Computer Science (LNCS) (2002). Springer Verlag. (International Conference on Formal Engineering Methods (ICFEM), 22 - 25 Oct 2002, Shanghai, China) (RANK 2 CONFERENCE).

66. Mitra*, T, A Roychoudhury and X Li, "Timing Analysis of Embedded Software for Speculative Processors". *ACM/IEEE International Symposium on System Synthesis (ISSS)* (2002): 126-131. NY: ACM Press. (ACM/IEEE International Symposium on System Synthesis (ISSS), 2 - 4 Oct 2002, Kyoto Royal Hotel, Kyoto, Japan) (RANK 2 CONFERENCE).
67. Roychoudhury*, A and T Mitra, "Specifying Multithreaded Java Semantics for Program Verification". *ACM/IEEE International Conference on Software Engineering (ICSE)* (2002): 489-499. NY: ACM Press. (ACM/IEEE International Conference on Software Engineering (ICSE), 19 - 25 May 2002, Orlando World Center Marriott, Orlando, Florida, United States) (RANK 1 CONFERENCE).
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