Aravinda Prasad Sistla
VITAE

ADDRESS:

Computer Science Department (M/C 152),
College of Engineering,
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EDUCATION:

Harvard University, Cambridge, Massachusetts:
  Ph. D. Computer Science/Applied Mathematics, June 1983
Indian Institute of Science, Bangalore, India:
  M.E. Computer Science, 1976
Nationa Institute of Technology, Warangal, India:
  B.Tech., Electronics and Communications Engineering,1974, India

RESEARCH INTERESTS:

Formal Methods in Concurrent and Distributed Systems,Security,Software Engineering,
Data-Base Management Systems.

AWARDS:

Fellow of the ACM (Association of Computing Machinary).
Highly Cited Researcher Certifficate from ISI.
University Scholar award, UIC, 2006.
UIC College of Engineering Research Award for the year 2002.
Best Poster Award at 2014 ACM CODASPY conference.

PROFESSIONAL ACTIVITIES:

- Keynote speaker at the 38th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS) held in Ahmedabad, India, Dec 10-14, 2018

- Keynote Speaker at ICST 2016: IEEE International Conference on Software Testing, Verification and Validation, Chicago, IL April 2016.

- Invited Speaker at PV2015 Workshop on Parameterized Verification, Madrid 2015.

- Associate Editor of the Journal "Formal Methods in System Design", Kluwer Acdemic Publishers, Jan 1997-onwards.

- Editorial Board member of Journal of Logical and Algebraic Methods in Programming, Elesvier Publishers.

- On the editorial board of ACM Transaction on Computation Logic from July 2008 thru March 2016.

- Co-chair of the program committee for the 12th International Conference on Computer Aided Verification to be held in Chicago, July 2000.

- Served on many Program Committees;

- Served on many NSF panels;

- Serving on the Organizing Committee of the NSF IDM workshop, March, 2000.

- Served on the panel on Formal Methods at the ACM Workshop on Strategic Directions in Computing Research, MIT, June 1996;

- Presented the following invited talks:

  - Second Paraneterized Verification Workshop in 2015 (PV2015) held in Madrid, Spain.
  - Workshop on Exploration of Large state Spaces at the Dagstuhl, Germany, November, 2001.
  - Workshop on Logic in Information Systems, Dagstuhel, July 1995;
  - Workshop on Multimedia Information Systems in Washington D.C., Organized by the Army Research Office and University of Maryland, Oct. 1995;
  - DIMACS workshop on Computational Complexity of Program Verification held in April 96 at Rutgers Univ;
  - IEEE Lake Arrowhead Work-shop on Concurrency held in September 1987.

- Published papers in many Journals such as TOPLAS,JACM,JCSS, Information and Computation etc.

- Published papers in conferences such as PODC, POPL, STOC,FOCS, LICS etc.

- Served on the thesis committees of Ph.D. students at Carnegie-Mellon University.

- Presented talks at many conferences such as ACM Symp On Principles of Distributed Computing, Symp on Theory of Computing, IEEE Symp on Logic in Computer Science etc.

- Presented talks at many universities including CMU, Cornell, U.T. Austin etc.

- Reviewed papers for the journals TOPLAS, JACM, Information and Computation, SIAM J. Computing, Acta Informatica etc.

EXPERIENCE:

August 2000 onwards : Full Professor in the Computer Science Dept., UIC.

August 94 to August 2000: Tenured Associate Professor at EECS Dept, UIC

August 1991 to August 1994: Untenured Associate Professor in the Department of Electrical Engineering and Computer Science at the University of Illinois at Chicago.

October 1985 to July 1991: Senior Member of Technical Staff in the Computer and Intelligent Systems Lab of GTE Laboratories Inc. During this period was involved in basic research in the areas of Distributed Systems, and Semantics and Verification of Concurrent Programs. During this period published papers in reputed conferences and journals and actively participated in research community activities.

Sept 83 - August 85: Assistant Professor at University of Massachusetts at Amherst,Massachusetts;

July 76-August 79: Systems Analyst, Tata Consultancy Services, Bombay, India.

Ph. D. Thesis: Theoretical Issues in the Design and Verification of Distributed Systems, Harvard University, 1983.

Thesis Advisor: E.M.Clarke, Carnegie-Mellon University, Pittsburgh, PA 15213

GRANTS:

1. $800,000— SHF:Medium:Collabarative Research: Verification of Differential Privacy Mechnisms, National Science Foundation, October 2019-Sepetember 2023 (PI).

2. $854,500— SHF:Medium: Self Certifying Compilation and Applications, National Science Foundation, August 2016 - July 2020 (co-PI).

3. $300,000—SHF:Small:Static and Dynamic Techniques for Correctness of Probabilistic Systems, National Science Foundation, September 2013- August 2016 (PI).

4. $297,000—TWC:Medium:Collabarative: Automated Formal Analysis of Security Protocols with Private Coin Tosses,National Science Foundation, September 2013- August 2016 (PI).

5. $360,00— CPS: Small:Monoitoring Techniques for Safety Crictical Cyber-Physical Systems, National Science Foundation, October 2010- September 2013 (PI).

6. $485,491— Runtime and Static Verification of Concurrent Systems, National Science Foundation, Aug 2009- July 2012 (PI).

7. $109,285— Monitoring Off-the-shelf Components, National Science Foundation, Sept 2007- Aug 2008 (PI).

8. $3,200,000 — IGERT: Electronic Security and Privacy– Technological, Human, Enterprise and Legal Consideration, National Science Foundation, 9/11 to 8/15 (Senior Investigator).

9. $3,097,976 — IGERT: Graduate Program in Computational Transportation Science, National Science Foundation, 6/06 to 5/11 (Co-Investigator).

10. $233,367 — "ITR:Collaborative Research: Towards a Seamless Process for the Development of Embedded Systems", National Science Foundation ITR grant, 9/02 to 8/05 (PI).

11. $200,000 — "Automated Methods for Verification of Concurrent Software Systems", National Science Foundation grant 8/1/00 to 7/31/03 (PI).

12. $347,000 — "Similarity Based Retriveal from Video and Pictorial Databases". NSF grant from 9/97 to 8/00 (jointly with J. BenArie) (PI).

13. $255,000 — "Triggers and Queries in Distributed Software Systems for Moving Objects". NSF grant from 8/98 to 7/01 (jointly with O. Wolfson and C.Yu) (PI).

14. $ 107,000 — "Formal Methods in Concurrent and Distributed Systems". NSF grant under software engineering 6/96- 8/99 (PI).

15. $ 191,000 — "A Formal Approach for a Specification based Software Architecture of Real-Time Systems". NSF grant from 6/96- 7/98 (co-PI, PI : Jeff Tsai).

16. $ 40,000 — "Retrieval from Video and Pictorial Databases Employing Similarity and Motion", ARO grant 7/98 to 6/99 (co-PI, PI: J. BenArie, other co-PI: Clement Yu).

17. $120,000 — "CISE Research Instrumentation: A Data intensive Distributed Computing System", NSF Equipment grant (co-PI, PI: Solworth, other co-PIs: Lobo, Wolfson and Yu) 02/97 to 01/98.

18. $ 155,000 —"Formal Methods in Concurrent and Distributed Systems" NSF grant under software engineering 9/92- 2/96 (PI).

19. $ 288,000 — "Active and Hetrogeneous Databases for Monitor and Control", Air-Force grant; 10/92-11/95 (co-PI, PI: Ouri Wolfson, other co-PI: Clement Yu).

20. $ 8,000 — "Distributed Fault Tolerance Through Roll Back Recovery" Awarded by Campus Research Board, 1992,University of Illinois (PI).

21. $ 60,000 — NSF Initiation grant; awarded in 1983 when in UMass at Amherst (PI).

JOURNAL PUBLICATIONS:

1. *Automatic Verification of Finite-State Concurrent Systems Using Temporal Logic Specifications* (with E.M.Clarke and E.A.Emerson), ACM Transactions On Programming Languages And Systems, Vol. 8,No. 2, April 1986, pp 244-263.

2. *Complexity of Propositional Linear Temporal Logics* (with E.M.Clarke), Journal of the Association for Computing Machinery, Vol. 32,No. 3,July 1985, pp 733-749.

3. *Can Message Buffers be Axiomatized in Linear Temporal Logic*(with E.M.Clarke, N.Francez and A.R.Meyer), Information and Control, Vol. 63, Nos. 1/2, October/November 1984, pp 88-112.

4. *Deciding Full Branching Time Logic* (with E.A.Emerson), Information and Control, Vol. 61, No. 3, June 1984, pp 175-201.

5. A Multiprocess Network Logic with Temporal and Spatial Modalities (with J. Reif), Journal of Computer and System Sciences, Vol. 30, No. 1, February 1985, pp 41-53.

6. *The Complementation Problem for Buchi Automata and Applications to Temporal Logic* (with M. Vardi and P. Wolper), Theoretical Computer Science, 49, No 2,3 1987, pp 217-237.

7. *On Verifying That A Concurrent Program Satisfies A Nondeterministic Specification*, Information Processing Letters 32 (1989), pp 17-23.

8. *Reasoning About Systems With Many Processes* (with S.M.German), Journal of the ACM, July 1992, Volume 39, Number 3, pp 675-735.

9. *Reasoning in a Restricted Temporal Logic* (with Lenore Zuck), Information and Computation, Vol 102, No 2, February 1993, pp 167-195.

10. *Proving Correctness with respect to Nondeterministic Safety Specifications*, Information Processing Letters 39(1991), pp 45-49.

11. *Quantitative Temporal Reasoning* (With E.A. Emerson, Al Mok and Jai Srinivasan), Journal of Real-Time Systems, 4, 1992, pp 331-352

12. *Safety, Liveness and Fairness in Temporal Logic*, Formal Aspects in Computing, 1994, vol. 6, pp 495-511.

13. *Temporal Triggers in Active Databases* (with Ouri Wolfson), IEEE Transactions on Knowledge and Data Engineering, Vol 7, No 3, June 1995, pp 471-486.

14. *Symmetry and Modelchecking* (with E. A. Emerson), Formal Methods in System Design, 9(1/2), 1996, pp 105-130.

15. *Hybrid and Incremental Modelchecking Techniques*, ACM Computing Surveys (electronic version), Vol 28, No. 4es, Dec 1996.

16. *Utilizing Symmetry when Modelchecking Under Fairness Assumptions*, (with E. A. Emerson), ACM Transactions on Programming Languages and Systems, July 1997, Volume 19, Number 4, pp 617-638.

17. *Minimization of Communication Cost Through Caching in Mobile Environments* (with Ouri Wolfson), IEEE Transactions on Parallel and Distributed Systems, Vol 9, No 4, April 1998, pp 378-390.

18. *Incremental Verification of Architecture Specification Language for Real-time Systems* (with Jeff Tsai, Avinash Sahay and Ray Paul), To appear in the Journal of Software Engineering and Knowledge Engineering.

19. *Towards a Theory of Cost Management for Digital Libraries and Electronic Commerce* (with Wolfson, Yesha and Sloan), ACM Transactions on Database Systems, Vol. 23(4), Dec. 1998, pp 411-452.

20. *Automatic Temporal Verification of Communicating Processes* (with L. Zuck), to appear in the journal Science of Computer Programming.

21. *On-the-fly Modelchecking under Fairness that Exploits Symmetry* (with V. Gyuris), Formal Methods in System Design, Vol 15, Issue 3, Nov 1999, pp 217-238.

22. *Updating and Querying Databases that Track Mobile Units* (with O. Wolfson, S. Chamberlin, Y. Yesha), Distrbuted and Parallel Databases, 7(3), 1999.

23. *Parametrized Verification of Linear Networks using automata as invariants* (with V. Gyuris), Formal Aspects of Computing, Vol. 11, pp 402-425, 1999.

24. *A New Incremental Algorithm for Real-time systems* (with A. Sahay and J. Tsai), Journal of Software Engineering and Knowledge Engineering, Vol. 9, No. 2, 1999.

25. *On Model-checking for mu-calculus and its fragments* (with E. A. Emerson and C. Jutla), Theoretical Computer Sciecne 258(1-2)(2001)pp 491-522.

26. *Reasoning about Qualitative Spatial Relationships* (with C. Y. Yu), Journal of Automated Reasoning, Vol. 25, no. 4, November 2000, pp 291-328.

27. *SMC: A Symmetry based Model Checker for safety and liveness properties* (with V. Gyuris and E. A. Emerson), ACM Transactions on Software Engineering Methodologies, Vol. 9, No. 2, April 2000, pp 133-166.

28. *Symmetry and Reduced Symmetry in Model Checking*(with P. Godefroid), ACM Transactions on Programming Languages, Volume 26, Issue 4, July 2004, Pages 702-734.

29. *Employing Symmetry Reductions in Model Checking*, Computer Languages, Systems and Structures 30 (2004) pp 99-137 (invited paper).

30. *Language based Policy Analysis in SPKI Trust Management Systems* (with A. Eamani), Journal of Computer Security Volume 14, Number 4(2006), pp 327-357.

31. *Analysis of Dynamic Policies* (with M. Zhou), Information and Computation, Vol. 206/2-4, pp 185-212.

32. *Checking Extended CTL Properties with Guarded Quotient Structures* (with X. Wang and M. Zhou), Formal methods in System design, Vol 31, Issue 3, Dec. 2007, pp 197-219.

33. *On the Expressiveness and Complexity of Randomization in Finite State Monitors* (with Rohit Chadha and Mahesh Viswanathan),Journal of the Association for Computing Machinery, Vol 56, No. 5, Article 26, August 2009.

34. *Power of Randomization in Automata on Infinite Strings* (with Rohit Chadha and Mahesh Viswanathan), Logical Methods in Computer Science, LMCS-2011-588, September 2011.

35. *The TranQuyl Language for Data Management in Intelligent Transportation" (with Ouri Wolfson and Bo Xu), Elsevier Transportation Research Part C, Special Issue on Data Management in Vehicular Networks, Vol 23, August 2012, pages 3-13.*

36. *Continuous Nearest-Neighbor Queries with Location Uncertainty (with Ouri Wolfson and Bo Xu), VLDB Journal 02/2015; 24(1):25-50.*

37. *Polarity Consistency Checking for Domain Independent Sentiment Dictionaries (with Eduard Dragut, Hong Wang, Clement Yu and Weiyi Meng), IEEE Transactions on Knowledge and Data Engineering, Volume:27, Issue:3,pp 838-851, July 2014.*

38. *Decidable and expressive classes of probabilistic automata (with Yue Ben, Rohit Chadha and Mahesh Viswanathan), Journal of Computer and System Sciences, Vol 100, pages 70-95, March 2019.*

39. *Exact Quantitative Probabilistic Model Checking Using Rational Search (with Matthew S. Bauer, Umang Mathur, R. Chadha and M. Viswanathan), To appear in Formal Methods in System Design.*

CONFERENCE PUBLICATIONS:

40. *Automatic Verification of Finite-State Concurrent Systems Using Temporal Logic Specifications (with E.M.Clarke and E.A.Emerson), Proceedings Of The 10th ACM Symposium On Principles Of Programming Languages, Austin, Texas, January 1983.*

41. *Complexity of Propositional Linear Temporal Logics (with E.M.Clarke), Proceedings Of The 14th Annual Acm Symposium On Theory Of Computing, Sanfransisco, May 1982.*

42. *Deciding Full Branching Time Logic(with E.A.Emerson), Proceedings Of The 16th Annual ACM Symposium On Theory Of Computing, Washington D.C., April-May 1984.*

43. *A Multiprocess Network Logic with Temporal and Spatial Modalities(with J. Reif), Proceedings Of The 10th International Colloquium On Automata, Languages And Programming, July 1983, Barcelona, Spain.*

44. *The Complementation Problem for Buchi Automata and Applications to Temporal Logic (with M. Vardi and P. Wolper), Proceedings Of The 12th International Colloquium On Automata, Languages And Programming, Greece, August 1985.*

45. *Can Message Buffers be Characterized in Linear Temporal Logic(with E.M.Clarke, N.Francez and Y.Gurevich), Proceedings of ACM SIGACT/SIGOPS Symposium on Principles of Distributed Computing, Ottawa, Canada, 1982.*

46. *Reasoning about Infinite Computations(with M.Vardi, P.Wolper), Proceedings of IEEE Symposium on Foundations of Computer Science, Tucson,Arizona, October, 1983.*

47. *Triple Exponential Decision Procedure for the Logic CTL* (with E. A. Emerson), Workshop on Logics of Programs, Carnegie-Mellon University, Pittsburgh, Pennsylvania, June 1983.*

48. *Distributed Algorithms to Ensure Fair Interprocess Communications, Proceedings ACM SIGACT/SIGOPS Symposium on Principles of Distributed Computing, Vancouver,Canada, August 1984.*

49. *On Characterization of Safety and Liveness Properties in Temporal Logic, Proceedings of the 4th ACM SIGACT/SIGOPS Symposium on Principles of Distributed Computing, Minaki,Canada, August 1985.*

50. *Reasoning with Many Processes (with S. M. German), Proceedings of the second IEEE Symposium On Logic in Computer Science, Cornell University, Ithaca, June 1987.*

51. *On the Eventuality Operator in Temporal Logic (with Lenore Zuck), Proceedings of the second IEEE Symposium On Logic in Computer Science, Cornell University, Ithaca, June 1987.*

52. *Using Temporal Logic for Automatic Verification of Finite State Systems (with M.Browne, E.M.Clarke and E.A.Emerson), Proceedings of the Advanced Course "Logics and Models for Verifications and Specifications of Concurrent Systems" ,Colle-sur-Loup, France, October 1984, Also Appeared in Springer-verlag Lecture Notes in Computer Science.*

53. *Efficient Distributed Recovery Using Message Logging (With Jennifer Welch), Proceedings Of The 8th Acm Symposium On Principles Of Distributed Computing, August 1989, Edmonton, Canada.*

54. *Quantitative Temporal Reasoning (With E.A. Emerson, Al Mok and Jai Srinivasan), Proceedings Of The Workshop On Automatic Verification Methods For Finite State Systems, June 1989, Grenoble, France.*

55. *Automatic Temporal Verification of Buffer Systems (with Lenore Zuck), Proceedings of the Workshop on Computer Aided Verification, Denmark, June 1991.*

56. *Symmetry and Modelchecking (with E. A. Emerson), Presented at the Fifth International Conference on Computer Aided Verification, Elounda, Crete, Greece June 28- July 1, 1993; Appeared in Lecture Notes in Computer Science 697, Springer-Verlag. c*

57. *Modelchecking for fragments of μ-calculus (with E. A. Emerson and C. S. Jutla), Presented at the Fifth International Conference on Computer Aided Verification, Elounda, Crete, Greece June 28- July 1, 1993; Appeared in Lecture Notes in Computer Science 697, Springer-Verlag.*

58. *Verification of a Real-life Protocol Using Symbolic Modelchecking (with V. G. Naik), 6th International Conference on Computer Aided Verification, Stanford, California, June 1994; Also appeared in Springer-Verlag Lecture Notes in Computer Science.*

59. *Data Replication for Mobile Computers (with Y. Huang and O. Wolfson), Proceedings of the ACM-SIGMOD 1994 International Conference on Management of Data, Minneapolis, Minnesotta, May 1994.*

60. *Reasoning about Spatial Relationships in Picture Retrieval Systems (with C. Yu and R. Haddad), Proceedings of the 20th VLDB Conference, Sept 12-15 1994, Santiago, Chile.*

61. *Temporal Conditions and Integrity Constraints (with O. Wolfson), Proceedings of the ACM-SIGMOD 1995 International Conference on Management of Data, San Jose, California, May 1995.*

62. *Temporal Condition Evaluation and Retroactive/Proactive Updates in ACtive Database Systems, International Workshop on Active and Realtime Database Systems, June 1995, Skovde, Sweden.*

63. *Similarity based Retrieval of Pictures Using Indices on Spatial Relationships (with C. Yu et al.), Proceedings of the 21st VLDB Conference, Sept 1995, Zurich, Switzerland.*

64. *Utilizing Symmetry when Modelchecking Under Fairness Assumptions, (with E. A. Emerson), International Conference on Computer Aided Verification, Leize, Belgium, July 1995.*

65. *G-tree: Performance evaluation and it's application in Fuzzy databases (with C. Liu, A. Ouksel, J. Wu, C.Yu and N. Rishe), Proceedings of the Fifth International Conference on Information and Knowlege Management 1996 (CIKM 96).*

66. *An Architecture for Consumer-Oriented Online Database Services (with Ouri Wolfson et al), Research Issues in Data Engineering Workshop 1996 (RIDE'96), NewOrleans, Louisiana.*

67. *Modeling and Querying Moving Objects (with Ouri Wolfson, Sam Chamberlain and Son Dao), IEEE International Conference on Data Engineering, April 1997, Birmingham, U.K.*

68. *Similarity based Retrieval of Videos (with C. Yu and R. Venkatasubramanian), IEEE International Conference on Data Engineering, April 1997, Birmingham, U.K.*

69. *On-the-fly Modelchecking under Fairness that Exploits Symmetry (with V. Gyuris), 9th International Conference on Computer Aided Verification, Haifa, Israel, June 1997; Springer-Verlag Lecture Notes in Computer Science 1254.*

70. *Parametrized Verification of Linear Networks using Automata as Invariants, 9th International Conference on Computer Aided Verification, Haifa, Israel, June 1997; Springer-Verlag Lecture Notes in Computer Science 1254.*

71. *SMC: A Symmetry based ModelChecker for Verification of Liveness Properties (with L. Milliades and V. Gyuris), 9th International Conference on Computer Aided Verification, Haifa, Israel, June 1997; Springer-Verlag Lecture Notes in Computer Science 1254.*

72. *Incremental Verification of Software Architecture (with A. Sahay and J. Tsai), ACM SIGSOFT Notices, Oct 1997, pp 80-83.*

73. *Query Processing in Video Retrieval Systems (with K. Liu, C. Yu and Rishie), 14th Intnl Conference on Data Engineering, Orlando, Florida, March 1998.*

74. *View Maintenance in Mobile Computing (with O. Wolfson, S. Dao, K. Narayanan, R. Raj), SIGMOD RECORD, Association of Computing Machinery Press, Dec. 1995.*

75. *Symmetry Reductions in Model Checking (with Clarke, Emerson and Jha), 10th International Conference on Computer Aided Verification, Vancouver, Canada, June 1998.*

76. *Databases for Tracking Mobile Units in Real Time (with O. Wolfson et al), Proceedings of the Seventh International Conference on Database Theory (ICDT), Jerusalem, Israel, Jan. 10-12, 1999, also to appear in the Springer-Verlag Lecture Notes in Computer Science.*

77. *DOMINO : Database for Moving Object Tracking (with O. Wolfson et al), ACM Symposium on Modification of Data (demo paper), June 1999, Philadelphia, Pennsylvania.*

78. *Tracking Objects using Database TechnologY: DOMINO, (with O. Wolfson, et al), The fourth workshop on Next Generation Information Technologies and Systems (NGITS '99), Israel, July 1999.*

79. *Symmetry and Reduced Symmetry in Modelchecking (with P. Godefroid), International Conference on Computer Aided Verification, July 2001, Paris, France.*

80. *Similarity based Retrieval from Sequence Databases using Automata as Queries (with Tao Hu and Vikas Choudhry), Eleventh International Conference on Knowledge and Information Management, Nov 4-9, 2002, McLean, VA.*

81. *Formal Languages and Algorithms for Similarity based Retrieval from Sequence Databases, 12th International Conference on Foundations of Software Technology and Theoretical Computer Science, Dec 12-14, 2002, Indian Institute of Technology, Kanpur; Also to in Springer-Verlag Lecture Notes in Computer Science.*

82. *An Economic Model for Resource Exchange in Mobile Peer to Peer Networks (with O. Wolfson and B. Xu), 16th International Conference on Scientific and Statistical Database Management (SSDBM), June 2004, Santorini Island, Greece.*

83. *Applications of a Transportation Information Architecture, (with J. Dillenbrug, Nelson et al), Proc. of the IEEE International conference on networking, Sensing, and Control (ICNSC 2004), Taipei, Taiwan, Mar. 2004.*

84. *Checking Extended CTL Properties Using Guarded Quotient Structures, (with X. Wang and Min Zhou), Proceedings of Second IEEE International Conference on Software Engineering and Formal Methods, Sept 2004, Beijing, China, pp 87-94.*

85. *Model Checking Systems Employing Commutative Functions (with Xiaodong Wang, Min Zhou), Proceedings of the International Conference on Verification, Model checking and Abstract Interpretation, Paris, January, 2005 (VMCAI 2005), Springer-Verlag Lecture Notes in Computer Science, LNCS 3385.*

86. *Combining Static Analysis and Model Checking for Systems Employing commutative Functions, FORTE 2005, Appeared in the Springer-Verlag Lecture Notes in Computer Science, Oct 2005.*

87. *Language based Policy Analysis in SPKI Trust Management Systems (with Arun Eamani) Fourth Annual PKI Annual R&D Workshop: Multuple Paths to Trust, NIST Gaithersburg, Maryland, April 2005.*

88. *Opportunistic Data Dissemination in Mobile Peer-to-Peer Networks (with Bo Xu and Ouri Wolfson) 9th International Symposium on Spatial and Temporal Databases, August 2005.*

89. *Taming the Interface Specifications (with L. Zuck, T. Margarita and B. Steffan) 16th International Symposium on Theory of Concurrency (CONCUR 2005), August 2005, Springer-verlag Lecture Notes in Computer Science LNCS 3653.*

90. *Merging Source Query Interfaces on Web Databases (with E, Dragut, W. Wu, C. Yu, W. Meng), 22nd International Conference on Data Engineering (ICDE'06), Atlanta, Georgia, April 2006 .*

91. *Monitoring off-the-shelf Components (with Min Zhou, Lenore Zuck), Proceedings of the seventh International Conference on Verification, Model checking and Abstract Interpretation, January, 2006 (VMCAI 2006), Springer-Verlag Lecture Notes in Computer Science, LNCS 3855.*

92. *Analysis of Dynamic Policies, (with M. Zhou), Joint Workshop on Foundations of Computer Security and Automated Reasoning for Security Protocol Analysis, Seattle, August 15-16, 2006.*

93. *Verification of Object-Relational Maps, (with K. Mehra, S. Rajamani and S. Jha), Fifth IEEE Symposium on Software Engineering and Formal Methods, London, Septemeber, 2007.*

94. *Monitoring Temporal Properties of Stochastic Systems, (with A. Srinivas), Proceedings of the 9th International Conference on Verification, Model checking and Abstract Interpretation, January, 2008 (VMCAI 2008), Springer-Verlag Lecture Notes in Computer Science.*

95. *CMV: Automatic Verification of Complete Mediation for Java Virtual Machines (with V. N. Venkatakrishnan, M. Zhou, H. Branske), ACM Symposium on Information, Computer and Communication Security (ASIACCS'08), Tokyo 18-20 March 2008.*

96. *On the Expressiveness and Complexity of Randomization in Finite State Monitors (with R. Chadha, M. Viswanathan), IEEE Symposium on Logic in Computer Science (LICS'08), Pittsburgh, June, 2008.*

97. *Preventing Information Leaks Through Shadow executions (with R. Capizzi, A. Longo and V. N. Venkatakrishnan), Annual Computer Security Applications Conference (ACSAC 2008), Annaheim, California, December 2008.*

98. *Monitoring the Full range of Omega-regular properties of Stochastic Systems (with Kalpana Gondi and Yogesh Patel), Proceedings of the 10th International Conference on Verification, Model Checking and Abstract Interpretation (VMCAI2009), Savannah, Georgia, 2009.*

99. *A Query Processor for Prediction based Monitoring of Data Streams (with Sergio Illari, Ouri Wolfson, Eduardo Mena and Arantza Illarramendi) 12th International Conference on Extended Databased Technology (EDBT 2009), March 2009, St Petersburg, Russia.*

100. *A Data Model for Trip Planning in Multimodal Transport Systems (with Joel Booth, Ouri Wolfson and Isabel Cruz) 12th International Conference on Extended Databased Technology (EDBT 2009), March 2009, St Petersburg, Russia.*

101. *Power of Randomization in Automata on Infinite Strings (with R. Chadha and M. Viswanathan), 20th International Conference on Concurrency Theory, Bolgna, Italy, September 2009, Lecture Notes in Computer Science 5710, Springer 2009 (CONCUR2009).*

102. *Stop Word and Related Problems in Web Interface Integration, (with Eduardo Dragut, Fang Fang, Clement Yu and Weiyi Meng), 35th International Conference on Very Large Database Systems, Lyon, France, August 2009 (VLDB2009).*

103. *Automatically Preparing Safe SQL Queries, (with Prithvi Bisht and V.N. Venkatakrishnan), Forteenth International Conference on Financial Cryptography and Data Security '10, Tenerife, Canary Islands, Spain, January 2010.*

104. *TAPS: Automatically Preparing Safe SQL Queries, (with Prithvi Bisht and V.N. Venkatakrishnan), ACM Conference on Computer and Communication Security 2010: 645-747, October, Chicago, Illinois (CCS2010).*

105. *Construction of a Sentimental Word Dictionary, (with Eduardo Dragut, Weiyi Meng and Clement Yu), 19th ACM International Conference on Information and Knowledge Management, Toronto, Canada, October 26-30, 2010 (CIKM 2010).*

106. *Model Checking Concurrent Programs with Nondeterminism and Randomization, (with Rohit Chadha and Mahesh Viswanathan), 30th International Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS2010), Chennai, India, December 15-18, 2010.*

107. *Probabilistic Buchi Automata with Non-extremal Thresholds, (with Rohit Chadha and Mahesh Viswanathan), 12th International Conference on Verification, Model checking and Abstract Interpretation (VMCAI2011), Austin, Texas, January 23-25, 2011.*

108. *Monitorability in Dynamic Stochastic Systems (with M. Zefran and Yao Feng), 23rd International Conference on Computer Aided Verifications (CAV2011), July 14-20, Cliff Lodge, Utah, 2011.*

109. *Answer-Pairs and Processing of Continuous Nearest-Neighbor Queries (with Ouri Wolfson and Bo Xu),The Seventh ACM SIGACT/SIGMOBILE International Workshop on Foundations of Mobile Computing (FOMC2011), June 2011, SanJose, California.*

110. *Runtime Monitoring of Stochastic Cyber-Physical Systems with Hybrid State (with Milos Zefran and Yao Feng), 2nd International Conference on Runtime Verification (RV 2011), September 27 - September 30, 2011 San Francisco, California.*

111. *Polarity Consistency Checking for Sentiment Dictionaries (with Eduard Dragut, Hong Wang, Clement Yu, Weiyi Meng), The 50th Annual Meeting of the Association for Computational Linguistics, July 8-Jul 12, 2012 (ACL2012), Jeju, Korea.*

112. *SWIPE: Eager Erasure of Sensitive Data in Large scale Systems Software (with K. Gondi, P. Bisht, P. Venkatachari, V. N. Venkatakrishnan), Second ACM Conference on Data and Application Security and Privacy (CODASPY 2012), pp 295-306, Feb 7-9, 2012, San Antonio, TX.*

113. *WEBLOG:A Declarative Language for Secure Web Development (with T. Hinrichs, D. Rosetti, G. Petronella, V. Venkatakrishnan, L. Zuck,* ACM SIGPLAN Eighth Workshop on Programming Languages and Analysis for Security (PLAS2013), June 2013, Seattle, Washington.

114. *Probabilistic Automata with Isolated cut points* (with Rohit Chadha and Mahesh Viswanathan), 38th International Symposium on Mathematical Foundations of Computer Science, August 2013 (MFCS2013), Klosterneuburg, Austria.

115. *Timely Monitoring in Partially Observable Stochastic Systems* (with M. Zefran, Y. Feng, Y. Ben), 17th International Conference on Hybrid Systems: Computation and Control (HSCC 2014), April 15-17, 2014, Berlin, Germany.

116. *Minimizing Lifetime of Sensitive Data in Concurrent Programs* (with K. Gondi and V. Venkatakrishnan), 4th ACM Conference on Data and Application Security and Privacy (CODASPY 2014), March 3-5, 2014, San Antonio, Texas.

117. *DEICS: Data Erasure In Concurrent Software* (with K. Gondi, V. Venkatakrishnan), The 19th Nordic Conference on Secure IT Systems (NordSec 2014),Tromso,Norway, October 15-17, 2014.

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