

# C. R. Ramakrishnan

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## Education:

- Ph.D., Computer Science, Stony Brook University, Stony Brook, New York. (1995).
- M.Sc.(Tech) Computer Science, M.Sc.(Hons) Physics, Birla Institute of Technology and Science, Pilani, India. (1987).

## Employment:

- Associate Professor, Department of Computer Science, Stony Brook University. (Sept. 2003 – present)
- Assistant Professor, Department of Computer Science, Stony Brook University. (Sept. 1997 – Aug. 2003)
- Post-Doctoral Research Associate, Department of Computer Science, Stony Brook University. (Sept. 1995 – Aug. 1997)

## Research Interests:

Logic Programming, Formal Methods, Programming Languages, Computer Security.

## Honors and Distinctions:

- National Science Foundation Faculty Early Career Award, (Sept 1999–Aug 2003).
- National Science Foundation Postdoctoral Research Associateship in Experimental Computer Science. (Sept 1995 –Aug 1997)
- Catacosinos Fellowship for Excellence in Computer Science. (Sept 1993 – May 1994, SUNY at Stony Brook)
- Institute Merit Scholarship. (Aug 1982 – May 1987, BITS, Pilani, India)

## Professional Activities:

### 1. Invited Talks:

- (a) *Model Checking and Logic Programming*, On the Frontiers of Science: Leading Young Investigators and the National Science Foundation, Columbia University, New York, NY, Dec. 2000.

- (b) *Tabled Logic Programming and Applications*, Summer School in (Constraint) logic programming, New Mexico State University, Las Cruces, NM, Aug. 1999.
  - (c) *Model Checking based on Logic Programming*, GULP International Summer School on Logic Programming Perspectives in Hot Research Areas, Maratea, Italy, Sept. 1998.
  - (d) *Logic Programming and Model Checking*, In Joint Intl. Symposium PLILP/ALP'98, Pisa, Italy, Sept. 1998.
2. Invited Tutorials:
- (a) *Verification using Tabled Logic Programming*, in International Conference on Concurrency Theory (CONCUR'2000), State College, Pennsylvania, August 2000.
  - (b) *Model Checking in XSB*, in Joint International Conference and Symposium on Logic Programming (JICSLP'98), Manchester, UK, June 1998.
3. Conference Organization:
- (a) *Program co-chair*, International SPIN Symposium on Model Checking Software (SPIN), Stony Brook, New York, July 2013.
  - (b) *Program co-chair*, Thirteenth International Conference on Tools and Algorithms for Construction and Analysis of Systems (TACAS), Budapest, Hungary, April 2008.
  - (c) *Guest Editor*, Special Issue on Verification and Computational Logic, Theory and Practice of Logic Programming.
  - (d) *Program co-chair*, Fourth International Symposium on Practical Applications of Declarative Languages, Portland, Oregon, Jan. 2002.
  - (e) *Program Committee Member* for:
    - i. International Conference on Logic Programming (ICLP), Istanbul, Turkey, August 2013.
    - ii. Tools and Algorithms for Construction and Analysis of Systems (TACAS), Saarbrücken, Germany, March 2011.
    - iii. ACM Symposium on Practical Applications of Declarative Programming (PADL), Austin, TX, Jan. 2011.
    - iv. Tools and Algorithms for Construction and Analysis of Systems (TACAS), Phafos, Cyprus, March 2010.
    - v. Tools and Algorithms for Construction and Analysis of Systems (TACAS), York, UK, March 2009.
    - vi. Verification, Model Checking and Abstract Interpretation (VMCAI), Savannah, GA, Jan. 2009.
    - vii. Logic-Based Program Synthesis and Transformation (LOPSTR), Valencia, Spain, July 2008.
    - viii. Logic-Based Program Synthesis and Transformation (LOPSTR), Kongens Lyngby, Denmark, Aug. 2007.
    - ix. Tools and Algorithms for Construction and Analysis of Systems (TACAS), Braga, Portugal, 2007.
    - x. Workshop on Software Verification and Validation, Seattle, WA, 2006.

- xi. Logic-Based Program Synthesis and Transformation (LOPSTR), London, UK, Sept. 2005.
- xii. Workshop on Software Verification and Validation, Manchester, UK, Oct. 2005.
- xiii. Logic-Based Program Synthesis and Transformation (LOPSTR), Verona, Italy, Aug. 2004.
- xiv. ACM Symposium on Practical Aspects of Declarative Languages (PADL), Dallas, Texas, June 2004.
- xv. Workshop on Software Verification and Validation, Mumbai, India, Dec. 2003.
- xvi. ACM Symposium on Principles and Practice of Declarative Programming (PPDP), Uppsala, Sweden, Aug. 2003.
- xvii. Workshop on Verification and Computational Logic, Pittsburg, PA, Oct. 2002.
- xviii. Logic Programming Synthesis and Transformation (LOPSTR), Madrid, Spain, Sept. 2002.
- xix. Fifth NASA Langley Formal Methods Workshop, Willamsburg, VA, June 2000.
- (f) *Co-organizer*, Workshop on Verification and Computational Logic, Firenze, Italy, Sept. 2001, and London, UK, July 2000.
- (g) *Publicity Chair*, International Conference on Logic Programming, Las Cruces, NM, 1999.
- (h) *Poster Chair*, International Logic Programming Symposium, Port Jefferson, NY, 1997.
- (i) *Co-organizer*, International Workshop on Tabling in Logic Programming, Leuven, Belgium, 1997.

#### 4. Refereeing:

##### Research Grants:

Panel member for CNS, IIS and EIA divisions of CISE directorate, and ENG directorate of the National Science Foundation; External reviewer for several proposals for the EIA division of CISE.

##### Journals:

ACM Transactions on Embedded Systems, ACM Transactions on Software Engineering, Formal Methods in System Design, Formal Methods Letters, Fundametae Informatica, IEEE Transactions on Parallel and Distributed Systems, Information and Computation, Journal of Logic Programming, Journal of Functional and Logic Programming, Software and Tools for Technology Transfer, Theoretical Computer Science, and Theory and Practice of Logic Programming.

##### Conferences:

ACM Symposium on Principles of Programming Languages (POPL'00, '07), Computer Aided Verification (CAV'05), Concurrency Theory (CONCUR'02, '08), European Symposium on Programming (ESOP'01), IEEE Symposium on Logic in Computer Science (LICS'07), IEEE Symposium on Security and Privacy (S&P'06), International Conference on Algebraic Methodology and Software Technology (AMAST'95), International Conference on Automated Deduction (CADE'99), International Conference on Foundations of Software Technology and Theoretical Computer Science (FST&TCS '95, '99, '00, '04, '11, '12), International Conference on Logic Programming (ICLP'04, '05, '06, '07, '12), International Conference on Practical Applications of Declarative Languages

(PADL'99), International Conference on Principles and Practice of Declarative Languages (PPDP'00), International Conference on Rewriting Techniques and Applications (RTA'93, RTA'95), International Conference on Tools and Algorithms for Construction and Analysis of Systems (TACAS'98), Joint International Conference/Symposium on Logic Programming (JICSLP'98), Logic for Programming Artificial Intelligence and Reasoning (LPAR'07), Mathematical Foundations of Computer Science (MFCS'07), International Symposium on Theoretical Aspects of Computer Science (STACS '09), Usenix Security Symposium (USS'05), Verification, Model Checking and Abstract Interpretation (VMCAI'03, VMCAI'07).

### **Courses Taught:**

- *Undergraduate:* Advanced Programming (Computer Science III), Principles of Programming Languages, Compiler Design.
- *Graduate:* Principles of Programming Languages, Computing with Logic, Compiler Design.
- *Graduate Seminars:* Program Analysis, Logic in Computer Science, Advanced Logic Programming, Model Checking and Abstraction, Computer Security.

### **Thesis Supervision:**

- *PhD Thesis Advisor For:*

- Prasad Rao (Stony Brook, 1997)
- Xiaoqun Du (Stony Brook, 2000)
- Abhik Roychoudhury (Stony Brook, 2000)
- Yifei Dong (Stony Brook, 2002)
- Samik Basu (Stony Brook, 2002)
- L. Robert Pokorny (Stony Brook, 2005)
- Giridhar Pemmasani (Stony Brook, 2005)
- Beata Sarna-Starosta (Stony Brook, 2005)
- Ping Yang (Stony Brook, 2006)
- Diptikalyan Saha (Stony Brook, 2006)
- Anu Singh (Stony Brook, 2009)
- Asiful Islam (Stony Brook, 2012)
- Andrey Gorlin (Stony Brook, expected 2013)
- Arun Nampally (Stony Brook, expected 2015)

- *PhD Thesis Committee Member For:*

- Baoqiu Cui (Stony Brook, 2000)
- Ernie Johnson (Stony Brook, 2002)
- Supratik Mukhopadhyay (Max Plank Institute, Germany, 2001)

- Parthasarathi Roop (University of Sydney, Australia, 2001)
  - Prashant Pradhan (Stony Brook, 2001)
  - Hasan Davulcu (Stony Brook, 2002)
  - Guizhen Yang (Stony Brook, 2002)
  - Tan Li (Stony Brook, 2003)
  - Saikat Mukherjee (Stony Brook, 2005)
  - Dezhuan Zhang (Stony Brook, 2006)
  - Rahul Agarwal (Stony Brook, 2006)
  - Liqiang Wang (Stony Brook, 2006)
  - Zan Sun (Stony Brook, 2006)
  - Katia Hristova (Stony Brook, 2007)
  - Jalal Mahmud (Stony Brook, 2008)
  - Chang Zhao (Stony Brook, 2009)
  - Hui Wan (Stony Brook, 2010)
  - Puneet Gupta (Stony Brook, 2011)
  - Faisal Ahmad (Stony Brook, 2012)
- ***MS Project Advisor For:*** Shu-Fa Hsu (1998), Yan Zhang (1999), Ali Alai-Tafti (1999), V.N. Venkatakrishnan (1999), Miti Adiecha (2002), Harpreet Singh (2005), Mandeep Singh Grang (2011).

## Research Grants:

### Federal Grants

1. “Center for Dynamic Data Analysis: A Multi-University Industry/University Collaborative Research Center”, National Science Foundation (IIP 1069147), 4/11–3/16, PIs: Ari Kaufman, C. R. Ramakrishnan, I. V. Ramakrishnan, Klaus Mueller, Lori Scarlatos.
2. “Probabilistic Tabled Logic Programming”, National Science Foundation (0831298), 08/10–08/13, PIs: C. R. Ramakrishnan, I. V. Ramakrishnan, Scott A. Smolka and David S. Warren.
3. “CT-T: Proactive Techniques for Preserving System Integrity: A Basis for Robust Defense Against Malware”, National Science Foundation (0831298), 08/08–08/12, PIs: R. Sekar, C. R. Ramakrishnan and Scott Stoller.
4. “NOSS: Airborne Video Sensor Networks for Surveillance and Emergency Response”, National Science Foundation (0721701), 9/07–8/10, PIs: Himanshu Gupta, Goldie Nejat, C. R. Ramakrishnan, Dimitris Samaras
5. “NOSS: Declarative Framework for Learning and Evaluating Probabilistic Models of Events in Sensor Networks”, National Science Foundation (CNS 0721665), 9/07–8/10, PIs: Himanshu Gupta, Samir Das, C. R. Ramakrishnan, I. V. Ramakrishnan, David S. Warren.
6. “A Framework for Analyzing and Ensuring Trust in Service-Oriented Architectures”, Office of Naval Research (MURI) #N00014-07-1-0928, 6/07–5/12, PIs: Scott Stoller, C. R. Ramakrishnan and R. Sekar.
7. “Center for Information Protection: A Multi-University Industry/University Collaborative Research Center”, National Science Foundation (IIP 0733935), 9/07–8/09, PIs: R. Sekar, Tzi-Cker Chiueh, Scott Stoller, Erez Zadok, Radu Sion, C. R. Ramakrishnan and Rob Johnson.
8. “CT-ISG: Deductive Spreadsheets for Security Policy Specification and Analysis”, National Science Foundation (CNS 0627447), 9/06–8/09. PIs: C. R. Ramakrishnan, I. V. Ramakrishnan, Scott Stoller and David S. Warren.
9. “A Plan for Developing a Multi-University Industry/University Collaborative Research Center on Cyber Security”, National Science Foundation, 9/06–1/07. Principal Investigators: R. Sekar, Tzi-Cker Chiueh, Rob Johnson, C. R. Ramakrishnan, Radu Sion, Scott D. Stoller, and Erez Zadok.
10. “A Deductive Engine for the Semantic Web”, National Science Foundation (IIS-0311512), 7/03–6/06. Principal Investigators: Michael Kifer, Annie Liu, C. R. Ramakrishnan, and I. V. Ramakrishnan.
11. “ITR: Model Checking for Detecting Computer System Vulnerabilities” National Science Foundation (CCR-0205376), 7/02–6/06. PIs: C. R. Ramakrishnan, I. V. Ramakrishnan, R. Sekar, Scott A. Smolka, Scott Stoller.
12. “Model Carrying Code: A New Paradigm for Mobile Code Security”, Office of Naval Research, 8/01–7/04. PIs: R. Sekar, C. R. Ramakrishnan, I. V. Ramakrishnan, Scott A. Smolka.

13. “Logic-Based Modeling, Analysis, and Implementation of Workflow Management Systems”, National Science Foundation (IIS-0072927), 10/00–9/03. PIs: Michael Kifer, C. R. Ramakrishnan, I. V. Ramakrishnan.
14. “Demand Propagation in Tabled Logic Programming”, National Science Foundation (EIA-9901602), CISE Postdoctoral Associateship in Experimental Computer Science. 9/99–8/01. PIs: Michael Kifer, C. R. Ramakrishnan, I. V. Ramakrishnan, David S. Warren.
15. “CAREER: Tabled Logic Programming for Verification and Program Analysis”, National Science Foundation (CCR-9876242), Faculty Early Career Award, 8/99–7/03. PI: C. R. Ramakrishnan
16. “SAMSON: Scalable Active Memory on the Net”, National Science Foundation Research Instrumentation Program (EIA-9818342), 1/99–12/01. C. R. Ramakrishnan among 9 PIs.
17. “Beyond Finite State Model Checking in LMC”, National Science Foundation (EIA-9805735), CISE Postdoctoral Associateship in Experimental Computer Science. 9/98–8/00. PIs: C. R. Ramakrishnan, I. V. Ramakrishnan, Scott A. Smolka, David S. Warren.
18. “Tabled Logic Programming in the Large”, National Science Foundation (CCR-9711386), 9/97–8/99. PIs: C. R. Ramakrishnan, I. V. Ramakrishnan, David S. Warren.
19. “LMC: A System for the Specification and Evaluation of Logic-Based Model Checking”, National Science Foundation (EIA-9705998), 8/97–7/01. PIs: Y. S. Ramakrishna, C. R. Ramakrishnan, I. V. Ramakrishnan, Scott A. Smolka, Terrance Swift, David S. Warren.
20. “An Integrated Compilation System for Logic Programming, Deductive Databases and Non-Monotonic Reasoning”, National Science Foundation (EIA-9504275), CISE Postdoctoral Associateship in Experimental Computer Science, 3/95–8/97. PI: David S. Warren, Postdoctoral Researcher: C. R. Ramakrishnan.

### Industry Grants

1. “SPIR: Reverse Matching: From Product Descriptions to Search Phrases”, Cash Your Clicks, 2/05–8/05, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
2. “SPIR: Product Pages Production Process”, Cash Your Clicks, 2/05–8/05, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
3. “SPIR: User-friendly Data Management Tool”, Cash Your Clicks, 2/05–8/05, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
4. “SPIR: Optimizing the Page Ranks of Product Pages for Search Engines”, Cash Your Clicks, 2/05–8/05, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
5. “Data Management Tool Version 1 for Ptool”, Cash Your Clicks, 9/04–12/04, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.

6. “SPIR: Automated Publishing Tool”, Cash Your Clicks, 9/04–6/05, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
7. “SPIR: Matching Search Phrases to Product Descriptions”, Cash Your Clicks, 2/04–12/04, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
8. “SPIR: Database for Publishing Tool”, Cash Your Clicks, 2/04–12/04, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
9. “SPIR: Data Management Process for Publishing Tools”, Cash Your Clicks, 2/04–6/05, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
10. “SPIR: User Interface for Publishing”, Cash Your Clicks, 2/04–6/05, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
11. “SPIR: A Tool for Product Promotion on the Web”, Cash Your Clicks, 6/03–8/03, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
12. “SPIR: Product Promotion on the Web”, Cash Your Clicks, 3/03–7/03, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
13. “SPIR: A Tool for Product Promotion on the Web”, Cash Your Clicks, 1/03–6/03, PI: C. R. Ramakrishnan, Funded via the College of Engineering and Applied Sciences’ SPIR program.
14. “UltraLog”, XSB Inc., 07/02–12/02, PIs: C. R. Ramakrishnan, I. V. Ramakrishnan, David S. Warren. Funded via the College of Engineering and Applied Sciences’ SPIR program.
15. “SPIR: Specifying Security Relevant Behaviors of Linux Applications”, Immundet Security Solutions Inc., 02/02–06/02. PI: C. R. Ramakrishnan. Funded via the College of Engineering and Applied Sciences’ SPIR program.
16. “SPIR: Development of a Psychiatric Diagnosis System — II”, Medicine Rules Inc., 1/01–5/02, PI: C. R. Ramakrishnan. Funded via the College of Engineering and Applied Sciences’ SPIR program.
17. “SPIR: Development of a Psychiatric Diagnosis System — I”, Medicine Rules Inc., 8/98–6/99. PI: C. R. Ramakrishnan. Funded via the College of Engineering and Applied Sciences’ SPIR program.



## Publications:

### Books/Collections

- C. R. Ramakrishnan, Jakob Rehof, *Tools and Algorithms for the Construction and Analysis of Systems, 14th International Conference(TACAS)*, Lecture Notes in Computer Science 4963, Springer, 2008.
- Shriram Krishnamurthi, C. R. Ramakrishnan, *Fourth International Symposium on Practical Aspects of Declarative Languages (PADL)*, Lecture Notes in Computer Science 2257, Springer, 2002.

### Refereed Journal Articles

- Amit Sasturkar, Ping Yang, Scott D. Stoller, C. R. Ramakrishnan, *Policy analysis for Administrative Role-Based Access Control*, Theor. Comput. Sci. 412(44): 6208-6234, 2011.
- Scott D. Stoller, Ping Yang, Mikhail I. Gofman, C. R. Ramakrishnan, *Symbolic reachability analysis for parameterized administrative role-based access control*, Computers & Security 30(2-3): 148-164, 2011.
- Anu Singh, C. R. Ramakrishnan, Scott A. Smolka, *A Process Calculus for Mobile Ad Hoc Networks*, Science of Computer Programming, 2010.
- Hai-Feng Guo, Miao Liu, Partha S. Roop, C. R. Ramakrishnan, I. V. Ramakrishnan, *Precise specification matching for adaptive reuse in embedded systems*, Journal of Applied Logic extbf5(2), pages 333–355, available at URL <http://dx.doi.org/10.1016/j.jal.2005.12.016>, 2007.
- Samik Basu, C. R. Ramakrishnan, *Compositional Analysis for Verification of Parameterized Systems*, Theoretical Computer Science **354**(2), pages 211–229, available at URL <http://dx.doi.org/10.1016/j.tcs.2005.11.016/>, 2006.
- Abhik Roychoudhury, C. R. Ramakrishnan, *Unfold/Fold Transformations for Automated Verification of Parameterized Concurrent Systems*, Program Development in Computational Logic 2004, pages 261–290, 2004.
- Abhik Roychoudhury, K. Narayan Kumar, C. R. Ramakrishnan, I. V. Ramakrishnan, *An unfold/fold transformation framework for definite logic programs*, ACM Transactions on Programming Languages and Systems (TOPLAS) extbf26(3), pages 464–509, 2004.
- Ping Yang, C. R. Ramakrishnan, Scott A. Smolka, *A Logical Encoding of the pi-Calculus: Model Checking Mobile Processes Using Tabled Resolution*, International Journal on Software Tools for Technology Transfer (STTT) extbf6(1), pages 38–66, available at URL <http://springerlink.metapress.com/openurl.asp?genre=article&id=doi:10.1007/s10009-003-0136-3>, 2004.
- C. R. Ramakrishnan, R. Sekar, *Model-Based Analysis of Configuration Vulnerabilities*, Journal of Computer Security (JCS) extbf10(1 / 2), pages 189–209, 2002.

- Abhik Roychoudhury, K. Narayan Kumar, C. R. Ramakrishnan, I. V. Ramakrishnan, *Beyond Tamaki-Sato Style Unfold/Fold Transformations for Normal Logic Programs*, International Journal on Foundations of Computer Science (IJFCS) extbf13(3), pages 387–403, 2002.
- Owen Kaser, C. R. Ramakrishnan, *Evaluating Inlining Techniques*, Journal of Computer Languages (JCL) extbf24(2), pages 55–72, 1998.
- Owen Kaser, C. R. Ramakrishnan, I. V. Ramakrishnan, R. Sekar, *EQUALS — Fast Parallel Evaluation of A Lazy Language*, Journal of Functional Programming (JFP) extbf7(2), pages 183–217, 1997.
- Steven Dawson, C. R. Ramakrishnan, Steven Skiena, Terrance Swift, *Principles and Practice of Unification Factoring*, ACM Transactions on Programming Languages and Systems (TOPLAS) extbf18(5), pages 528–563, 1996.
- Owen Kaser, Shaunak Pawagi, C. R. Ramakrishnan, *On the Conversion of Indirect to Direct Recursion*, ACM Letters on Programming Languages and Systems (LOPLAS) extbf2(1–4), pages 151–164, 1993.

## Refereed Conference Papers

- Muhammad Asiful Islam, C. R. Ramakrishnan, I. V. Ramakrishnan, *Parameter Learning in PRISM Programs with Continuous Random Variables*, International Conference on Logic Programming (ICLP), 2012. [Best Student Paper Award]
- Andrey Gorlin, C. R. Ramakrishnan, Scott A. Smolka, *Model Checking with Probabilistic Tabled Logic Programming*, International Conference on Logic Programming (ICLP), 2012.
- Ezio Bartocci, Radu Grosu, Panagiotis Katsaros, C. R. Ramakrishnan, Scott A. Smolka, *Model Repair for Probabilistic Systems*, 17th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS), Lecture Notes in Computer Science 6605, pages 326–340, Springer, 2011.
- Anu Singh, C. R. Ramakrishnan, Scott A. Smolka, *A Process Calculus for Mobile Ad Hoc Networks*, Concurrency Theory (CONCUR), 2009.
- Scott D. Stoller, Ping Yang, Michael Gofman, C. R. Ramakrishnan, *Symbolic Reachability Analysis for Parameterized Administrative Role Based Access Control*, Symposium on Access Control Models and Technologies (SACMAT), pages 165–174, ACM, 2009.
- Jalal Mahmud, Yevgen Borodin, I.V. Ramakrishnan, C. R. Ramakrishnan, *Automated Construction of Web Accessibility Models from Transaction Click Streams*, 18th International World Wide Web Conference (WWW), pages 871–880, 2009.
- Oliviero Riganelli, Radu Grosu, Samir R. Das, C. R. Ramakrishnan, Scott A. Smolka, *Power Optimization in Fault-Tolerant Mobile Ad Hoc Networks*, IEEE High Assurance Systems Engineering Symposium (HASE), pages 362–370, 2008.
- Anu Singh, C. R. Ramakrishnan, I. V. Ramakrishnan, David S. Warren, Jennifer Wong, *A methodology for in-network evaluation of integrated logical-statistical models*, 6th International Conference on Embedded Networked Sensor Systems, pages 197–210, ACM, 2008.

- Anu Singh, C. R. Ramakrishnan, Scott A. Smolka, *A Process Calculus for Mobile Ad Hoc Networks*, 10th International Conference on Coordination Models and Languages (COORDINATION), Lecture Notes in Computer Science 5052, pages 296–314, Springer, 2008.
- Scott Stoller, Ping Yang, C. R. Ramakrishnan, Mikhail Gofman, *Efficient Policy Analysis for Administrative Role Based Access Control*, ACM Conference on Computer and Communication Security (CCS), pages 445–455, ACM Press, 2007.
- Beata Sarna-Starosta, C. R. Ramakrishnan, *Compiling Constraint Handling Rules for Efficient Tabled Evaluation*, Practical Aspects of Declarative Languages (PADL), Lecture Notes in Computer Science 4354, pages 170–184, Springer, 2007.
- C. R. Ramakrishnan, I. V. Ramakrishnan, David S. Warren, *Deductive Spreadsheets using Tabled Logic Programming*, International Conference on Logic Programming (ICLP), Lecture Notes in Computer Science 4079, pages 391–405, Springer, 2006.
- Diptikalyan Saha, C. R. Ramakrishnan, *A Local Algorithm for Incremental Evaluation of Tabled Logic Programs*, International Conference on Logic Programming (ICLP), Lecture Notes in Computer Science 4079, pages 56–71, Springer, 2006.
- Amit Sasturkar, Ping Yang, Scott D. Stoller, C. R. Ramakrishnan, *Policy Analysis for Administrative Role Based Access Control*, 19th IEEE Computer Security Foundations Workshop (CSFW), pages 124–138, IEEE Press, 2006.
- Ping Yang, Samik Basu, C. R. Ramakrishnan, *Parameterized Verification of Pi-Calculus Systems*, 12th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS), Lecture Notes in Computer Science 3920, pages 42–57, Springer, 2006.
- Diptikalyan Saha, C. R. Ramakrishnan, *Incremental Evaluation of Tabled Prolog: Beyond Pure Logic Programs*, Practical Aspects of Declarative Languages (PADL), Lecture Notes in Computer Science 3819, pages 215–229, Springer, available at URL <http://www.lmc.cs.sunysb.edu/~dsaha/callg/>, 2006.
- Diptikalyan Saha, C. R. Ramakrishnan, *Symbolic Support Graph: A Space-Efficient Data Structure for Incremental Tabled Evaluation*, International Conference on Logic Programming (ICLP), Lecture Notes in Computer Science 3668, pages 235–249, Springer, available at URL <http://www.lmc.cs.sunysb.edu/~dsaha/symspt/>, 2005.
- Diptikalyan Saha, C. R. Ramakrishnan, *Incremental and Demand-Driven Points-To Analysis using Logic Programming*, Seventh International ACM SIGPLAN Conference on Principles and Practice of Declarative Programming (PPDP), pages 117–128, ACM Press, available at URL [http://www.lmc.cs.sunysb.edu/~dsaha/incr\\_pta/](http://www.lmc.cs.sunysb.edu/~dsaha/incr_pta/), 2005.
- Ping Yang, C. R. Ramakrishnan, Scott A. Smolka, *A Provably Correct Compiler for Efficient Model Checking of Mobile Processes*, Practical Aspects of Declarative Languages (PADL), Lecture Notes in Computer Science 3350, pages 113–127, Springer, 2005.

- Giridhar Pemmasani, Haifeng Guo, Yifei Dong, C. R. Ramakrishnan, I. V. Ramakrishnan, *Online Justification for Tabled Logic Programs*, International Functional and Logic Programming (FLOPS), Lecture Notes in Computer Science 2998, pages 24–38, Springer, 2004.
- Beata Sarna-Starosta, C. R. Ramakrishnan, *Constraint-Based Model Checking of Data-Independent Systems*, International Conference on Formal Engineering Methods (ICFEM), Lecture Notes in Computer Science 2885, pages 579–598, Springer, 2003.
- Giridhar Pemmasani, Haifeng Guo, Yifei Dong, C. R. Ramakrishnan, I. V. Ramakrishnan, *Online Justification for Tabled Logic Programs*, International Conference on Logic Programming (ICLP), Lecture Notes in Computer Science 2916, pages 500–501, Springer, 2003.
- Diptikalyan Saha, C. R. Ramakrishnan, *Incremental Evaluation of Tabled Logic Programs*, International Conference on Logic Programming (ICLP), Lecture Notes in Computer Science 2916, pages 389–406, Springer, 2003.
- Yifei Dong, C. R. Ramakrishnan, Scott A. Smolka, *Evidence Explorer: A Tool for Exploring Model-Checking Proofs*, Fifteenth International Conference on Computer Aided Verification (CAV), Lecture Notes in Computer Science 2725, pages 215–218, Springer, 2003.
- Yifei Dong, C. R. Ramakrishnan, Scott A. Smolka, *Model Checking and Evidence Exploration*, IEEE Conference and Workshops on Engineering Computer Based Systems, pages 214–223, IEEE, 2003.
- Samik Basu, C. R. Ramakrishnan, *Compositional Analysis for Verification of Parameterized Systems*, Ninth International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS), Lecture Notes in Computer Science 2619, pages 315–330, Springer, 2003.
- Ping Yang, C. R. Ramakrishnan, Scott A. Smolka, *A Logical Encoding of the pi-calculus: Model Checking Mobile Processes Using Tabled Resolution*, Verification, Model Checking and Abstract Interpretation (VMCAI), Lecture Notes in Computer Science 2575, pages 116–131, Springer, 2003.
- Haifeng Guo, C. R. Ramakrishnan, I. V. Ramakrishnan, *Justification Based on Program Transformation*, Logic Based Program Development and Transformation (LOPSTR), 2002.
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