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Research output

An axiomatization of information flow measures

Alvim, M. S., Chatzikokolakis, K., McIver, A., Morgan, C., Palamidessi, C. & Smith, G., 19 Jul 2019, In : Theoretical Computer Science. 777, p. 32-54 23 p.

Abstract Hidden Markov Models: a monadic account of quantitative information flow

McIver, A., Morgan, C. & Rabehaja, T., 29 Mar 2019, In : Logical Methods in Computer Science. 15, 1, p. 1-50 50 p., 36.

Generalised differential privacy for text document processing

Fernandes, N., Dras, M. & McIver, A., 1 Jan 2019, *Principles of Security and Trust: 8th International Conference, POST 2019, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2019, Proceedings*. Nielson, F. & Sands, D. (eds.). Cham: Springer-VDI-Verlag GmbH & Co. KG, p. 123-148 26 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 11426 LNCS).

Schedulers and finishers: on generating and filtering the behaviours of an event structure

McIver, A., Rabehaja, T. & Struth, G., 5 Oct 2018, In : Theoretical Computer Science. 744, p. 97-112 16 p.

A new proof rule for almost-sure termination

McIver, A., Morgan, C., Kaminski, B. L. & Katoen, J-P., 5 Jan 2018, In : Proceedings of the ACM on Programming Languages. 2, POPL, p. 1-28 28 p., 33.

An algebraic approach for reasoning about information flow

Américo, A., Alvim, M. S. & McIver, A., 1 Jan 2018, *Formal Methods: 22nd International Symposium, FM 2018, Held as Part of the Federated Logic Conference, FloC 2018, Proceedings*. Havelund, K., Peleska, J., Roscoe, B. & de Vink, E. (eds.). Cham: Springer, Springer Nature, p. 55-72 18 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 10951 LNCS).

Conditioning in probabilistic programming

Olmedo, F., Gretz, F., Jansen, N., Kaminski, B. L., Katoen, J. P. & McIver, A., 1 Jan 2018, In : ACM Transactions on Programming Languages and Systems. 40, 1, p. 1-50 50 p., 4.

Preface

McIver, A. & Horvath, A., 1 Jan 2018, *Quantitative Evaluation of Systems: 15th International Conference, QEST 2018*. McIver, A. & Horvath, A. (eds.). Vol. 11024 LNCS. p. v-vi 2 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)).

Processing text for privacy: an information flow perspective

Fernandes, N., Dras, M. & McIver, A., 1 Jan 2018, *Formal Methods: 22nd International Symposium, FM 2018, Held as Part of the Federated Logic Conference, FloC 2018, Proceedings*. Havelund, K., Peleska, J., Roscoe, B. & de Vink, E. (eds.). Cham: Springer, Springer Nature, p. 3-21 19 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 10951 LNCS).

Privacy in elections: How small is "small"?

McIver, A., Rabehaja, T., Wen, R. & Morgan, C., 1 Oct 2017, In : Journal of Information Security and Applications. 36, p. 112-126 15 p.

Algebra for quantitative information flow

Mclver, A. K., Morgan, C. C. & Rabehaja, T., 2017, *Relational and algebraic methods in computer science: 16th International Conference, RAMiCS 2017, Lyon, France, May 15-18, 2017. Proceedings.* Höfner, P., Pous, D. & Struth, G. (eds.). Springer, Springer Nature, p. 3-23 21 p. (Lecture Notes in Computer Science; vol. 10226).

Formal analysis of the information leakage of the DC-nets and crowds anonymity protocols

Américo, A., Vaz, A., Alvim, M. S., Campos, S. V. A. & Mclver, A., 2017, *Formal methods: foundations and applications: 20th Brazilian Symposium, SBMF 2017, Recife, Brazil, November 29 – December 1, 2017. Proceedings.* Cavalheiro, S. & Fiadeiro, J. (eds.). Cham: Springer, Springer Nature, p. 142-158 17 p. (Lecture Notes in Computer Science; vol. 10623).

Reasoning about distributed secrets

Bordenabe, N., Mclver, A., Morgan, C. & Rabehaja, T., 2017, *Formal techniques for distributed objects, components, and systems: 37th IFIP WG 6.1 International Conference, FORTE 2017, held as part of the 12th International Federated Conference on Distributed Computing Techniques, DisCoTec 2017, Neuchâtel, Switzerland, June 19-22, 2017, Proceedings.* Bouajjani, A. & Silva, A. (eds.). Cham: Springer, Springer Nature, p. 156-170 15 p. (Lecture Notes in Computer Science; vol. 10321).

Probabilistic rely-guarantee calculus

Mclver, A., Rabehaja, T. & Struth, G., 6 Dec 2016, In : *Theoretical Computer Science.* 655, p. 120-134 15 p.

Axioms for information leakage

Alvim, M. S., Chatzikokolakis, K., Mclver, A., Morgan, C., Palamidessi, C. & Smith, G., 8 Aug 2016, *Proceedings - IEEE 29th Computer Security Foundations Symposium, CSF 2016.* Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), Vol. 2016-August. p. 77-92 16 p. 7536368. (IEEE Computer Security Foundations Symposium Proceedings).

Program refinement, perfect secrecy and information flow

Mclver, A. K., 2016, *Engineering Trustworthy Software Systems - 1st International School, SETSS 2014, Tutorial Lectures.* Liu, Z. & Zhang, Z. (eds.). 1st ed. Cham, Switzerland: Springer, Springer Nature, Vol. 9506. p. 80-102 23 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9506).

Schedulers and finishers: On generating the behaviours of an event structure

Mclver, A., Rabehaja, T. & Struth, G., 2016, *Theoretical Aspects of Computing - ICTAC 2016, 13th International Colloquium, Proceedings.* Sampaio, A. & Wang, F. (eds.). Cham, Switzerland: Springer, Springer Nature, Vol. 9965 LNCS . p. 121-138 18 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9965 LNCS).

Conditioning in Probabilistic Programming

Jansen, N., Kaminski, B. L., Katoen, J. P., Olmedo, F., Gretz, F. & Mclver, A., 21 Dec 2015, In : *Electronic Notes in Theoretical Computer Science.* 319, p. 199-216 18 p.

Abstract hidden Markov models: a monadic account of quantitative information flow

Mclver, A., Morgan, C. & Rabehaja, T., 31 Jul 2015, *Proceedings - 2015 30th Annual ACM/IEEE Symposium on Logic in Computer Science, LICS 2015.* Picataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 597-608 12 p. 7174915. (Annual Symposium on Logic in Computer Science).

Hidden-Markov program algebra with iteration

Mclver, A., Meinicke, L. & Morgan, C., 19 Feb 2015, In : *Mathematical Structures in Computer Science.* 25, 2, p. 320-360 41 p.

Logic for programming, artificial intelligence, and reasoning: 20th international conference, LPAR-20 2015 Suva, Fiji, november 24–28, 2015 proceedings

Davis, M. (ed.), Fehnker, A. (ed.), Mclver, A. (ed.) & Voronkov, A. (ed.), 2015, Heidelberg: Springer, Springer Nature. 640 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9450)

Additive and multiplicative notions of leakage, and their capacities

Alvim, M. S., Chatzikokolakis, K., Mclver, A., Morgan, C., Palamidessi, C. & Smith, G., 13 Nov 2014, *Proceedings - 2014 IEEE 27th Computer Security Foundations Symposium, CSF 2014*. Los Alamitos, CA: Institute of Electrical and Electronics Engineers (IEEE), Vol. 2014-January. p. 308-322 15 p. 6957119

Hopscotch - reaching the target hop by hop

Höfner, P. & Mclver, A., 7 Aug 2014, In : *Journal of Logical and Algebraic Methods in Programming*. 83, 2, p. 212-224 13 p., 397.

Operational versus weakest pre-expectation semantics for the probabilistic guarded command language

Gretz, F., Katoen, J. P. & Mclver, A., Mar 2014, In : *Performance Evaluation*. 73, p. 110-132 23 p.

Abstractions of non-interference security: Probabilistic versus possibilistic

Hoang, T. S., Mclver, A. K., Meinicke, L., Morgan, C. C., Sloane, A. & Susatyo, E., Jan 2014, In : *Formal Aspects of Computing*. 26, 1, p. 169-194 26 p.

Abstract channels and their robust information-leakage ordering

Mclver, A., Morgan, C., Smith, G., Espinoza, B. & Meinicke, L., 2014, *Principles of Security and Trust - Third International Conference, POST 2014, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2014, Proceedings*. Abadi, M. & Kremer, S. (eds.). Heidelberg: Springer, Springer Nature, p. 83-102 20 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8414 LNCS).

Towards a formal analysis of information leakage for signature attacks in preferential elections

Wen, R., Mclver, A. & Morgan, C., 2014, *FM 2014: Formal Methods - 19th International Symposium, Proceedings*. Jones, C., Pihlajasaari, P. & Sun, J. (eds.). Cham, Switzerland: Springer, Springer Nature, Vol. 8442 LNCS. p. 595-610 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8442 LNCS).

An event structure model for probabilistic concurrent Kleene algebra

Mclver, A., Rabehaja, T. & Struth, G., 2013, *Logic for Programming, Artificial Intelligence, and Reasoning - 19th International Conference, LPAR 2013, Proceedings*. McMillan, K., Middeldorp, A. & Voronkov, A. (eds.). Heidelberg: Springer, Springer Nature, Vol. 8312. p. 653-667 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8312 LNCS).

Prinsys - On a quest for probabilistic loop invariants

Gretz, F., Katoen, J. P. & Mclver, A., 2013, *Quantitative Evaluation of Systems: 10th International Conference, QEST 2013, Buenos Aires, Argentina, August 27-30, 2013. Proceedings*. Joshi, K., Siegle, M., Stoelinga, M. & D'Argenio, P. R. (eds.). Heidelberg: Springer, Springer Nature, p. 193-208 16 p. (Lecture Notes in Computer Science; vol. 8054).

Probabilistic concurrent Kleene algebra

Mclver, A., Rabehaja, T. & Struth, G., 2013, In : *Proceedings 11th International Workshop on Quantitative Aspects of Programming Languages and Systems* : Rome, 23rd-24th March 2013. p. 97-115 19 p.

Statistical model checking of wireless mesh routing protocols

Höfner, P. & Mclver, A., 2013, *NASA Formal Methods - 5th International Symposium, NFM 2013, Proceedings*. Brat, G., Rungta, N. & Venet, A. (eds.). Heidelberg: Springer, Springer Nature, Vol. 7871. p. 322-336 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 7871 LNCS).

Preface: Special issue QFM 2009

Andover, S., Mclver, A. & Nunez, M., Jan 2012, In : *Journal of Logic and Algebraic Programming*. 81, 1, p. 1 1 p.

A Kantorovich-monadic powerdomain for information hiding, with probability and nondeterminism

Mclver, A., Meinicke, L. & Morgan, C., 2012, *Proceedings of the 2012 27th Annual ACM/IEEE Symposium on Logic in Computer Science, LICS 2012*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 461-470 10 p. 6280465

A process algebra for wireless mesh networks

Fehnker, A., Van Glabbeek, R., Höfner, P., Mclver, A., Portmann, M. & Tan, W. L., 2012, *Programming Languages and Systems: 21st European Symposium on Programming, ESOP 2012, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2012, Proceedings*. Seidl, H. (ed.). Heidelberg, Germany: Springer, Springer Nature, Vol. 7211 LNCS. p. 295-315 21 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 7211 LNCS).

A rigorous analysis of AODV and its variants

Höfner, P., Tan, W. L., Mclver, A., Van Glabbeek, R., Portmann, M. & Fehnker, A., 2012, *MSWiM'12 - Proceedings of the 15th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems*. Zomaya, A. (ed.). New York: ACM, p. 203-212 10 p.

Automated analysis of AODV using UPPAAL

Fehnker, A., Van Glabbeek, R., Höfner, P., Mclver, A., Portmann, M. & Tan, W. L., 2012, *Tools and Algorithms for the Construction and Analysis of Systems - 18th Int. Conf., TACAS 2012, Held as Part of the European Joint Conf. on Theory and Practice of Software, ETAPS 2012, Proceedings*. Flanagan, C. & König, B. (eds.). Heidelberg, Germany: Springer, Springer Nature, Vol. 7214 LNCS. p. 173-187 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 7214 LNCS).

Operational versus weakest precondition semantics for the probabilistic guarded command language

Gretz, F., Katoen, J. P. & Mclver, A., 2012, *Proceedings - 2012 9th International Conference on Quantitative Evaluation of Systems, QEST 2012*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 168-177 10 p. 6354645

Compositional refinement in agent-based security protocols

Mclver, A. K. & Morgan, C. C., Nov 2011, In : *Formal Aspects of Computing*. 23, 6, p. 711-737 27 p.

Model exploration and analysis for quantitative safety refinement in probabilistic B

Ndukwu, U. & Mclver, A., 17 Jun 2011, In : *Proceedings of the 15th International Refinement Workshop (Refine 2011)* : Limerick, Ireland, 20th June 2011. 55, p. 101-120 20 p.

Continual and explicit comparison to promote proactive facilitation during second computer language learning

Bower, M. & Mclver, A., 2011, *ITiCSE'11 - Proceedings of the 16th Annual Conference on Innovation and Technology in Computer Science*. New York: ACM, p. 218-222 5 p.

On probabilistic Kleene algebras, automata and simulations

Mclver, A., Rabehaja, T. M. & Struth, G., 2011, *Relational and Algebraic Methods in Computer Science: 12th International Conference, RAMICS 2011, Rotterdam, The Netherlands, May 30 – June 3, 2011. Proceedings*. de Swart, H. (ed.). Heidelberg: Springer, Springer Nature, p. 264-279 16 p. (Lecture Notes in Computer Science; vol. 6663).

Preface

Höfner, P., Mclver, A. & Struth, G., 2011, In : *CEUR Workshop Proceedings*. 760, p. 4p 1 p.

Towards an algebra of routing tables

Höfner, P. & Mclver, A., 2011, *Relational and Algebraic Methods in Computer Science - 12th International Conference, RAMICS 2011, Proceedings*. de Swart, H. (ed.). Heidelberg, Germany: Springer, Springer Nature, Vol. 6663 LNCS. p. 212-229 18 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6663 LNCS).

An expectation transformer approach to predicate abstraction and data independence for probabilistic programs

Ndukwu, U. & Mclver, A. K., 2010, *Proceedings of the 8th Workshop on Quantitative Aspects of Programming Languages*. Di Pierro, A. & Norman, G. (eds.). Electronic Proceedings in Theoretical Computer Science (EPTCS), p. 129-143 15 p.

Compositional closure for Bayes risk in probabilistic noninterference

Mclver, A., Meinicke, L. & Morgan, C., 2010, *Automata, Languages and Programming - 37th International Colloquium, ICALP 2010, Proceedings*. Abramsky, S., Gavoille, C., Kirchner, C., Meyer auf der Heide, F. & Spirakis, P. G. (eds.). PART 2 ed. Berlin; Heidelberg: Springer, Springer Nature, Vol. 6199 LNCS. p. 223-235 13 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6199 LNCS, no. PART 2).

Linear-invariant generation for probabilistic programs: Automated support for proof-based methods

Katoen, J. P., Mclver, A. K., Meinicke, L. A. & Morgan, C. C., 2010, *Static Analysis - 17th International Symposium, SAS 2010, Proceedings*. Cousot, R. & Martel, M. (eds.). Berlin: Springer, Springer Nature, Vol. 6337 LNCS. p. 390-406 17 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6337 LNCS).

The Thousand-and-one cryptographers

Mclver, A. K. & Morgan, C. C., 2010, *Reflections on the work of C.A.R. Hoare*. Roscoe, A. W., Jones, C. B. & Wood, K. B. (eds.). London: Springer, Springer Nature, p. 255-282 28 p. (History of computing).

YAGA: automated analysis of quantitative safety specifications in probabilistic B

Ndukwu, U. & Mclver, A. K., 2010, *Automated Technology for Verification and Analysis - 8th International Symposium, ATVA 2010, Proceedings*. Bouajjani, A. & Chin, W-N. (eds.). Berlin; Heidelberg: Springer, Springer Nature, Vol. 6252 LNCS. p. 378-386 9 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 6252 LNCS).

Graphical modelling for simulation and formal analysis of wireless network protocols

Fehnker, A., Fruth, M. & Mclver, A. K., 2009, In : *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. 5454 LNCS, p. 1-24 24 p.

Security, probability and nearly fair coins in the cryptographers' café

Mclver, A., Meinicke, L. & Morgan, C., 2009, *FM 2009: Formal Methods: Second World Congress, Eindhoven, The Netherlands, November 2-6, 2009. Proceedings*. Cavalcanti, A. & Dams, D. R. (eds.). Berlin: Springer, Springer Nature, p. 41-71 31 p. (Lecture Notes in Computer Science; vol. 5850).

Sums and lovers: Case studies in security, compositionality and refinement

Mclver, A. K. & Morgan, C. C., 2009, *FM 2009: Formal Methods: Second World Congress, Eindhoven, The Netherlands, November 2-6, 2009. Proceedings*. Cavalcanti, A. & Dams, D. R. (eds.). Berlin: Springer, Springer Nature, p. 289-304 16 p. (Lecture Notes in Computer Science; vol. 5850).

The secret art of computer programming

Mclver, A. K., 2009, *Theoretical aspects of computing - ICTAC 2009: 6th International Colloquium, Kuala Lumpur, Malaysia, August 16-20, 2009, proceedings*. Leucker, M. & Morgan, C. (eds.). Berlin: Springer, Springer Nature, p. 61-78 18 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 5684 LNCS).

Using probabilistic Kleene algebra pKA for protocol verification

Mclver, A. K., Gonzalia, C., Cohen, E. & Morgan, C. C., May 2008, In : *Journal of Logic and Algebraic Programming*. 76, 1, p. 90-111 22 p.

CaVi - Simulation and model checking for wireless sensor networks

Boulis, A., Fehnker, A., Fruth, M. & Mclver, A., 2008, *Proceedings - 5th International Conference on the Quantitative Evaluation of Systems, QEST 2008*. G., R. (ed.). Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 37-38 2 p. 4634949

Proofs and refutations for probabilistic refinement

Mclver, A. K., Morgan, C. C. & Gonzalia, C., 2008, In : *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. 5014 LNCS, p. 100-115 16 p.

Results on the quantitative μ -calculus $q\mu p$

Mclver, A. & Morgan, C., 1 Jan 2007, In : ACM Transactions on Computational Logic. 8, 1, p. 1-43 43 p., 3.

Automating refinement checking in probabilistic system design

Gonzalia, C. & Mclver, A., 2007, *Formal Methods and Software Engineering - 9th International Conference on Formal Engineering Methods, ICFEM 2007, Proceedings*. Butler, M., Hinchey, M. G. & Larrondo-Petrie, M. M. (eds.). Berlin; New York: Springer, Springer Nature, Vol. 4789 LNCS. p. 212-231 20 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 4789 LNCS).

Formal techniques for the analysis of wireless networks

Mclver, A. K. & Fehnker, A., 2007, *Proceedings - ISoLA 2006: 2nd International Symposium on Leveraging Applications of Formal Methods, Verification and Validation*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 263-270 8 p. 4463722

A Novel Stochastic Game Via the Quantitative μ -calculus

Mclver, A. & Morgan, C., 23 May 2006, In : Electronic Notes in Theoretical Computer Science. 153, 2 SPEC. ISS., p. 195-212 18 p.

Developing and reasoning about probabilistic programs in pGCL

Mclver, A. & Morgan, C., 2006, *Refinement Techniques in Software Engineering - First Pernambuco Summer School on Software Engineering, PSSE 2004, Revised Lectures*. Berlin; New York: Springer, Springer Nature, Vol. 3167 LNCS. p. 123-155 33 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 3167 LNCS).

Programming-logic analysis of fault tolerance: expected performance of self-stabilisation

Morgan, C. C. & Mclver, A., 2006, *RIGOROUS DEVELOPMENT OF COMPLEX FAULT-TOLERANT SYSTEMS*. Butler, M., Jones, C., Romanovsky, A. & Troubitsyna, E. (eds.). Berlin; New York: Springer, Springer Nature, p. 288-305 18 p. (Lecture Notes in Computer Science; vol. 4157).

Quantitative refinement and model checking for the analysis of probabilistic systems

Mclver, A. K., 2006, *FM 2006: Formal Methods - 14th International Symposium on Formal Methods, Proceedings*. Misra, J., Nipkow, T. & Sekerinski, E. (eds.). Berlin; New York: Springer, Springer Nature, Vol. 4085 LNCS. p. 131-146 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 4085 LNCS).

Quantitative μ -calculus analysis of power management in wireless networks

Mclver, A. K., 2006, *Theoretical Aspects of Computing - ICTAC 2006 Third International Colloquium, Proceedings*. Barkaoui, K., Cavalcanti, A. & Cerone, A. (eds.). Berlin; New York: Springer, Springer Nature, Vol. 4281 LNCS. p. 50-64 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 4281 LNCS).

Using probabilistic Kleene algebra for protocol verification

Mclver, A. K., Cohen, E. & Morgan, C. C., 2006, *Relations and Kleene Algebra in Computer Science - 9th Int. Conf. on Relational Methods in Computer Science and 4th Int. Workshop on Applications of Kleene Algebra, ReMiCS/AKA 2006, Proceedings*. Berlin; New York: Springer, Springer Nature, Vol. 4136 LNCS. p. 296-310 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 4136 LNCS).

Probabilistic guarded commands mechanized in HOL

Hurd, J., Mclver, A. & Morgan, C., 23 Nov 2005, In : Theoretical Computer Science. 346, 1, p. 96-112 17 p.

Memoryless strategies for stochastic games via domain theory

Morgan, C. & Mclver, A., 12 May 2005, In : Electronic Notes in Theoretical Computer Science. 130, p. 23-37 15 p.

An elementary proof that Herman's Ring is $\Theta(N^2)$

Mclver, A. & Morgan, C., 30 Apr 2005, In : Information Processing Letters. 94, 2, p. 79-84 6 p.

Probabilistic Guarded Commands Mechanized in HOL

Hurd, J., Mclver, A. & Morgan, C., 2 Jan 2005, In : Electronic Notes in Theoretical Computer Science. 112, SPEC. ISS., p. 95-111 17 p.

Abstraction and refinement in probabilistic systems

Mclver, A. K. & Morgan, C., 2005, In : Performance Evaluation Review. 32, 4, p. 41-47 7 p.

Abstraction, refinement and proof for probabilistic systems

Mclver, A. & Morgan, C., 2005, New York, USA: Springer, Springer Nature.

Compositional specification and analysis of cost-based properties in probabilistic programs

Celiku, O. & Mclver, A., 2005, In : Lecture Notes in Computer Science. 3582, p. 107-122 16 p.

Development via refinement in probabilistic B - Foundation and case study

Hoang, T. S., Jin, Z., Robinson, K., Mclver, A. & Morgan, C., 2005, In : Lecture Notes in Computer Science. 3455, p. 355-373 19 p.

Towards automated proof support for probabilistic distributed systems

Mclver, A. K. & Weber, T., 2005, In : Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). 3835 LNAI, p. 534-548 15 p.

Cost-based analysis of probabilistic programs mechanised in HOL

Celiku, O. & Mclver, A., 2004, In : Nordic Journal of Computing. 11, 2, p. 102-128 27 p.

Deriving probabilistic semantics via the 'weakest completion'

Jifeng, H., Morgan, C. & Mclver, A., 2004, In : Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). 3308, p. 131-145 15 p.

Almost-certain eventualities and abstract probabilities in the quantitative temporal logic qTL

Mclver, A. & Morgan, C., 9 Feb 2003, In : Theoretical Computer Science. 293, 3, p. 507-534 28 p.

Probabilistic invariants for probabilistic machines

Hoang, T. S., Jin, Z., Robinson, K., Mclver, A. & Morgan, C., 2003, In : Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). 2651, p. 240-259 20 p.

Probabilistic termination in B

Mclver, A., Morgan, C. & Hoang, T. S., 2003, In : Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). 2651, p. 216-239 24 p.

Programming Methodology

Mclver, A. (ed.) & Morgan, C. (ed.), 2003, Springer, Springer Nature.

Quantitative program logic and expected time bounds in probabilistic distributed algorithms

Mclver, A. K., 7 Jun 2002, In : Theoretical Computer Science. 282, 1, p. 191-219 29 p.

Games, probability, and the quantitative μ -calculus $qM\mu$

Mclver, A. K. & Morgan, C. C., 2002, *Logic for Programming, Artificial Intelligence, and Reasoning - 9th International Conference, LPAR 2002, Proceedings*. Baaz, M. & Voronkov, A. (eds.). Berlin; Heidelberg: Springer, Springer Nature, Vol. 2514. p. 292-310 19 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 2514).

Cost analysis of games, using program logic

Morgan, C. & McIver, A., Dec 2001, *Proceedings of the Asia-Pacific Software Engineering Conference and International Computer Science Conference, APSEC and ICSC*. Piscataway, N.J.: Institute of Electrical and Electronics Engineers (IEEE), p. 351 1 p. 991501

A generalisation of stationary distributions, and probabilistic program Algebra

McIver, A. K., Nov 2001, In : *Electronic Notes in Theoretical Computer Science*. 45, p. 279-289 11 p.

Partial correctness for probabilistic demonic programs

McIver, A. K. & Morgan, C., 6 Sep 2001, In : *Theoretical Computer Science*. 266, 1-2, p. 513-541 29 p.

Almost-certain eventualities and abstract probabilities in quantitative temporal logic

McIver, A. & Morgan, C., Jan 2001, In : *Electronic Notes in Theoretical Computer Science*. 42, p. 15-43 29 p.

Demonic, angelic and unbounded probabilistic choices in sequential programs

McIver, A. K. & Morgan, C., Jan 2001, In : *Acta Informatica*. 37, 4-5, p. 329-354 26 p.

A Generalisation of Stationary Distributions and Probabilistic Program Algebra

McIver, A. K., 2001, *Electronic Notes in Theoretical Computer Science, Vol 45*. Brooks, S. & Mislove, M. (eds.). Amsterdam, The Netherlands: Elsevier, p. 1-11 11 p.

Quantitative program logic and performance in probabilistic distributed algorithms

McIver, A. K., 1999, *Formal Methods for Real-Time and Probabilistic Systems: 5th International AMAST Workshop, ARTS'99, Bamberg, Germany, May 26-28, 1999, Proceedings*. Katoen, J-P. (ed.). 1 ed. Berlin: Springer, Springer Nature, Vol. 1601. p. 19-33 15 p. (Lecture Notes in Computer Science; vol. 1601).

Reasoning about efficiency within a probabilistic μ -calculus

McIver, A. K., 1999, In : *Electronic Notes in Theoretical Computer Science*. 22, p. 138-155 18 p.

Probabilistic models for the guarded command language

Jifeng, H., Seidel, K. & McIver, A., Apr 1997, In : *Science of Computer Programming*. 28, 2-3, p. 171-192 22 p.

Unifying wp and wlp

Morgan, C. & McIver, A., 12 Aug 1996, In : *Information Processing Letters*. 59, 3, p. 159-163 5 p.

Probabilistic Predicate Transformers

Morgan, C., McIver, A. & Seidel, K., May 1996, In : *ACM Transactions on Programming Languages and Systems*. 18, 3, p. 325-353 29 p.

Refinement-oriented probability for CSP

Morgan, C., McIver, A., Seidel, K. & Sanders, J. W., 1996, In : *Formal Aspects of Computing*. 8, 6, p. 617-647 31 p.

Software, who needs it?

McIver, A., 1996, In : *New Scientist*. 152, 2054, p. 40-43 4 p.

A question of identity

McIver, A., 1994, In : *Nature*. 368, 6472, p. 589-590 2 p.

Finitely generated non-Hopf modules

McIver, A., Jun 1990, In : *Archiv der Mathematik*. 54, 6, p. 533-538 6 p.

Enumerating finite groups

Mciver, A. & Neumann, P. M., Dec 1987, In : Quarterly Journal of Mathematics. 38, 4, p. 473-488 16 p.