

Ansgar Fehnker  
Associate Professor  
School of Computing  
**Email:** ansgar.fehnker@mq.edu.au



## Biography

Ansgar Fehnker is an Associate Professor (Teaching and Leadership) in the School of Computing at Macquarie University. He was previously an Associate Professor at the University of Twente, a professor in CS/IS at the University of the South Pacific, and a researcher at National ICT Australia in Sydney. His research interest is the use of automated system and software verification tools, in particular model checking and static analysis, and their application in the design and development of software systems. His work includes verification for cyber-physical systems, static analysis for C/C++, modelling and verification of wireless routing protocols, analysis of block-chain technology and more recently, developing and applying software analysis tools and methods for an educational context.

## Employment

### Associate Professor (Teaching and Leadership)

Associate Professor  
School of Computing  
Macquarie University  
15 Nov 2021 → present

### Associate Professor

University of Twente  
NB Enschede, Netherlands  
1 Feb 2016 → 14 Nov 2021

### Professor

University of the South Pacific  
Fiji  
1 Feb 2012 → 31 Jan 2016

### Researcher

National ICT Australia Limited (NICTA)  
Eveleigh, Australia  
1 Nov 2004 → 31 Dec 2012

## Research outputs

### What's in school? – topic maps for secondary school computer science

Fehnker, A., 2022, *A journey from process algebra via timed automata to model learning : essays dedicated to Frits Vaandrager on the occasion of his 60th birthday*. Jansen, N., Stoelinga, M. & van den Bos, P. (eds.). Cham: Springer, Springer Nature, p. 151-163 13 p. (Lecture Notes in Computer Science; vol. 13560).

Atelier Hands-On Training  
Blaas, R., Fehnker, A. & Mader, A. H., 1 Jun 2021

### Atelier – tutor moderated comments in programming education

Fehnker, A., Mader, A. H. & Rump, A., 2021, *Technology-Enhanced Learning for a Free, Safe, and Sustainable World: 16th European Conference on Technology Enhanced Learning, EC-TEL 2021 Bolzano, Italy, September 20–24, 2021 Proceedings*. De Laet, T., Klemke, R., Alario-Hoyos, C., Hilliger, I. & Ortega-Arranz, A. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 379-383 5 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 12884 LNCS).

Automated assessment of learning objectives in programming assignments

Rump, A., Fehnker, A. & Mader, A., 2021, *Intelligent Tutoring Systems: 17th International Conference, ITS 2021 Virtual Event, June 7–11, 2021 Proceedings*. Cristea, A. I. & Troussas, C. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 299-309 11 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 12677 LNCS).

Be lazy and don't care: faster CTL model checking for recursive state machines

Dubslaff, C., Wienhöft, P. & Fehnker, A., 2021, *Software Engineering and Formal Methods: 19th International Conference, SEFM 2021 Virtual Event, December 6–10, 2021 Proceedings*. Calinescu, R. & Păsăreanu, C. S. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 332-350 19 p. (Lecture Notes in Computer Science; vol. 13085).

Out for coffee: with Rob

Fehnker, A., Oct 2020, In: *Acta Informatica*. 57, 3-5, p. 323-327 5 p.

A distributed blockchain model of selfish mining

Eijkel, D. & Fehnker, A., 2020, *Formal Methods - FM 2019 International Workshops: Porto, Portugal, October 7–11, 2019 Revised Selected Papers, Part I*. Sekerinski, E., Moreira, N. & Oliveira, J. N. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 350-361 12 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 12232).

A sports day for programming

Fehnker, A., 2020, *The 9th Computer Science Education Research Conference, CSERC '20*. Stikkorum, D. R. & Rahimi, E. (eds.). New York, NY: Association for Computing Machinery (ACM), p. 1-6 6 p. 11. (ACM International Conference Proceeding Series).

Atelier - an online platform for programming tutorials

Fehnker, A., Mader, A., Rump, A., Rutgers, M., Steenmeijer, L. & Witteveen, C., 2020, *Proceedings of the 9th Computer Science Education Research Conference, CSERC '20*. Stikkorum, D. & Rahimi, E. (eds.). New York, NY: Association for Computing Machinery (ACM), p. 101-102 2 p. (CSERC '20).

Atelier for creative programming

Fehnker, A. & Mader, A., 2020, *CSEDU 2020: Final Program and Book of Abstracts*. Setubal, Portugal: SciTePress, p. 43 1 p.

Atelier for Creative Programming - Poster Video

Fehnker, A. & Mader, A. H., 2020

Atelier – Support for Creative Programming Education

Fehnker, A. & Mader, A. H., 2020.

Atelier voor Creatief Programmeren

Fehnker, A., Mader, A. H., Rump, A., Rutgers, M. & Steenmeijer, L., 2020.

Double-spending analysis of bitcoin

Chaudhary, K., Chand, V. & Fehnker, A., 2020, *24th Pacific Asia Conference on Information Systems: Information Systems (IS) for the Future, PACIS 2020*. Dubai: Association for Information Systems, p. 1-14 14 p.

## Preface

Fehnker, A. & Garavel, H., 2020, *Proceedings of the 4th Workshop on Models for Formal Analysis of Real Systems, MARS 2020*. Fehnker, A. & Garavel, H. (eds.). Waterloo, NSW: Open Publishing Association, 1 p. (Electronic Proceedings in Theoretical Computer Science, EPTCS).

Proceedings of the 4th Workshop on Models for Formal Analysis of Real Systems, MARS 2020  
Fehnker, A. (ed.) & Garavel, H. (ed.), 2020.

Tinkering in informatics as teaching method

Mader, A. H., Fehnker, A. & Dertien, E., 2020, *CSEDU 2020 - Proceedings of the 12th International Conference on Computer Supported Education*. Lane, H. C., Zvacek, S. & Uhomoihibhi, J. (eds.). Setúbal, Portugal: SciTePress, p. 450-457 8 p. (CSEDU 2020 - Proceedings of the 12th International Conference on Computer Supported Education; vol. 1).

Detecting and addressing design smells in novice Processing programs

Fehnker, A. & de Man, R., 2019, *Computer Supported Education: 10th International Conference, CSEDU 2018 Funchal, Madeira, Portugal, March 15–17, 2018 Revised Selected Papers*. McLaren, B. M., Reilly, R., Zvacek, S. & Uhomoihibhi, J. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 507-531 25 p. (Communications in Computer and Information Science; vol. 1022).

Adaptive formal framework for WMN routing protocols

Kamali, M. & Fehnker, A., 2018, *Formal Aspects of Component Software: 15th International Conference, FACS 2018 Pohang, South Korea, October 10–12, 2018 Proceedings*. Bae, K. & Ölveczky, P. C. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 175-195 21 p. (Lecture Notes in Computer Science; vol. 11222).

An even better approach: improving the B.A.T.M.A.N. protocol through formal modelling and analysis

Fehnker, A., Chaudhary, K. & Mehta, V., 2018, *NASA Formal Methods: 10th International Symposium, NFM 2018 Newport News, VA, USA, April 17–19, 2018 Proceedings*. Dutle, A., Muñoz, C. & Narkawicz, A. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 164-178 15 p. (Lecture Notes in Computer Science; vol. 10811).

The smell of Processing

de Man, R. & Fehnker, A., 2018, *CSEDU 2018 - Proceedings of the 10th International Conference on Computer Supported Education*. McLaren, B. M., Reilly, R., Zvacek, S. & Uhomoihibhi, J. (eds.). Setúbal, Portugal: SciTePress, Vol. 1 . p. 420-431 12 p. (CSEDU 2018 - Proceedings of the 10th International Conference on Computer Supported Education; vol. 2).

Twenty percent and a few days: optimising a Bitcoin majority attack

Fehnker, A. & Chaudhary, K., 2018, *NASA Formal Methods: 10th International Symposium, NFM 2018 Newport News, VA, USA, April 17–19, 2018 Proceedings*. Dutle, A., Muñoz, C. & Narkawicz, A. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 157-163 7 p. (Lecture Notes in Computer Science; vol. 10811).

Automated Program Analysis for Novice Programmers

Blok, T. & Fehnker, A., 2017, *Proceedings of the 3rd International Conference on Higher Education Advances, HEAd '17*. Domenech, J., Vincent-Vela, M. C., de la Poza, E. & Blazquez, D. (eds.). València: Editorial Universitat Politècnica de València , p. 1138-1146 9 p.

Evaluating the stream control transmission protocol using Uppaal

Saini, S. & Fehnker, A., 2017, *Proceedings 2nd Workshop on Models for Formal Analysis of Real Systems (MARS 2017)*. Hermanns, H. & Höfner, P. (eds.). Waterloo, NSW: Open Publishing Association, p. 1-13 13 p. (EPTCS; vol. 244).

Modelling, verification, and comparative performance analysis of the B.A.T.M.A.N. protocol

Chaudhary, K., Fehnker, A. & Mehta, V., 2017, *Proceedings 2nd Workshop on Models for Formal Analysis of Real Systems, MARS@ETAPS 2017*. Hermanns, H. & Höfner, P. (eds.). Waterloo, NSW: Open Publishing Association, p. 53-65 13 p. (Electronic Proceedings in Theoretical Computer Science (EPTCS); vol. 244).

Model checking a client-side micro payment protocol

Chaudhary, K. & Fehnker, A., 2016, *Proceedings - Asia-Pacific World Congress on Computer Science and Engineering 2016 and Asia-Pacific World Congress on Engineering 2016, APWC on CSE/APWCE 2016*. Shawkat Ali, A. B. M., Khan, M. A. & Mamun, K. (eds.). Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 90-97 8 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.), McIver, 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)

Model checking a server-side micro payment protocol

Chaudhary, K. & Fehnker, A., 2015, *Formal Methods for Industrial Critical Systems: 20th International Workshop, FMICS 2015 Oslo, Norway, June 22–23, 2015, Proceedings*. Núñez, M. & Güdemann, M. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 96-110 15 p. (Lecture Notes in Computer Science; vol. 9128).

Modeling and verification of the Bitcoin protocol

Chaudhary, K., Fehnker, A., van de Pol, J. & Stoelinga, M., 2015, *Proceedings of the Workshop on Models for Formal Analysis of Real Systems (MARS 2015)*. van Glabbeek, R., Groote, J. F. & Höfner, P. (eds.). Waterloo, NSW: Open Publishing Association, p. 46-60 15 p. (Electronic Proceedings in Theoretical Computer Science; vol. 196).

## Preface

Davis, M., Fehnker, A., McIver, A. & Voronkov, A., 2015, *Logic for Programming, Artificial Intelligence, and Reasoning: 20th International Conference, LPAR-20 2015 Suva, Fiji, November 24–28, 2015, Proceedings*. Davis, M., Fehnker, A., McIver, A. & Voronkov, A. (eds.). Berlin: Springer, Springer Nature, 1 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 9450).

Modeling and verification for the server-side Netpay protocol

Chaudhary, K., Fehnker, A. & Dai, X., 2014, *Asia-Pacific World Congress on Computer Science and Engineering, APWC on CSE 2014*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 1-8 8 p.

Model checking driven static analysis for the real world: designing and tuning large scale bug detection

Fehnker, A. & Huuck, R., Mar 2013, In: *Innovations in Systems and Software Engineering*. 9, 1, p. 45-56 12 p.

The quest for precision: a layered approach for data race detection in static analysis

Mund, J., Huuck, R., Fehnker, A. & Artho, C., 2013, *Automated Technology for Verification and Analysis: 11th International Symposium, ATVA 2013 Hanoi, Vietnam, October 15-18, 2013, Proceedings*. Hung, D. V. & Ogawa, M. (eds.). Cham, Switzerland: Springer, Springer Nature, p. 516-525 10 p. (Lecture Notes in Computer Science; vol. 8172).

Topology-based mobility models for wireless networks

Fehnker, A., Höfner, P., Kamali, M. & Mehta, V., 2013, *Quantitative Evaluation of Systems: 10th International Conference, QEST 2013 Buenos Aires, Argentina, August 27-30, 2013, Proceedings*. Joshi, K. R., Siegle, M., Stoelinga, M. & D'Argenio, P. R. (eds.). Heidelberg: Springer, Springer Nature, p. 389-404 16 p. (Lecture Notes in Computer Science; vol. 8054).

## Automated analysis of AODV using UPPAAL

Fehnker, A., Van Glabbeek, R., Höfner, P., McIver, 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).

SMT-based false positive elimination in static program analysis

Junker, M., Huuck, R., Fehnker, A. & Knapp, A., 2012, *Formal Methods and Software Engineering: 14th International Conference on Formal Engineering Methods, ICFEM 2012 Kyoto, Japan, November 12-16, 2012, Proceedings*. Aoki, T. & Taguchi, K. (eds.). Heidelberg: Springer, Springer Nature, p. 316-331 16 p. (Lecture Notes in Computer Science; vol. 7635).

Cyber security at software development time

Bradley, M., Fehnker, A. & Huuck, R., 2011, *2011 Defense Science Research Conference and Expo, DSR 2011*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), 4 p.

Model checking dataflow for malicious input

Fehnker, A., Huuck, R. & Rödiger, W., 2011, *Proceedings of the Workshop on Embedded Systems Security, WESS '11*. New York, NY: Association for Computing Machinery (ACM), p. 1-10 10 p. 4

### **Modelling and analysis of AODV in UPPAAL**

Fehnker, A., van Glabbeek, R., Höfner, P., McIver, A., Portmann, M. & Tan, W. L., 2011, p. 1-6. 6 p.

### **Fade to grey: tuning static program analysis**

Fehnker, A., Huuck, R., Seefried, S. & Tapp, M., 12 Oct 2010, In: *Electronic Notes in Theoretical Computer Science*. 266, p. 17-32 16 p.

### **Counterexample guided path reduction for static program analysis**

Fehnker, A., Huuck, R. & Seefried, S., 2010, *Concurrency, Compositionality, and Correctness: Essays in Honor of Willem-Paul de Roever*. Dams, D., Hannemann, U. & Steffen, M. (eds.). Berlin: Springer, Springer Nature, p. 322-341 20 p. (Lecture Notes in Computer Science; vol. 5930).

### **Software metrics in static program analysis**

Vogelsang, A., Fehnker, A., Huuck, R. & Reif, W., 2010, *Formal Methods and Software Engineering: 12th International Conference on Formal Engineering Methods, ICFEM 2010 Shanghai, China, November 17-19, 2010, Proceedings*. Dong, J. S. & Zhu, H. (eds.). Berlin: Springer, Springer Nature, p. 485-500 16 p. (Lecture Notes in Computer Science; vol. 6447).

### **An abstract specification language for static program analysis**

Vistein, M., Ortmeier, F., Reif, W., Huuck, R. & Fehnker, A., 28 Oct 2009, In: *Electronic Notes in Theoretical Computer Science*. 254, p. 181-197 17 p.

### **Automatic bug detection in microcontroller software by static program analysis**

Fehnker, A., Huuck, R., Schlich, B. & Tapp, M., 2009, *SOFSEM 2009: Theory and Practice of Computer Science: 35th Conference on Current Trends in Theory and Practice of Computer Science Špindleruv Mlýn, Czech Republic, January 24-30, 2009, Proceedings*. Nielsen, M., Kucera, A., Miltersen, P. B., Palamidessi, C., Tuma, P. & Valencia, F. D. (eds.). Berlin: Springer, Springer Nature, p. 267-278 12 p. (Lecture Notes in Computer Science; vol. 5404).

### **Incremental false path elimination for static software analysis**

Fehnker, A., Huuck, R. & Seefried, S., 2009, *Automated Technology for Verification and Analysis: 7th International Symposium, ATVA 2009 Macao, China, October 14-16, 2009, Proceedings*. Liu, Z. & Ravn, A. P. (eds.). Berlin: Springer, Springer Nature, p. 255-270 16 p. (Lecture Notes in Computer Science; vol. 5799).

### **On the impact of modelling choices for distributed information spread: a comparative study**

Bakhshi, R. & Fehnker, A., 2009, *Proceedings, Sixth International Conference on the Quantitative Evaluation of Systems, QEST 2009*. Los Alamitos, CA: Institute of Electrical and Electronics Engineers (IEEE), p. 41-50 10 p.

### **Survey on directed model checking**

Edelkamp, S., Schuppan, V., Bošnački, D., Wijs, A., Fehnker, A. & Aljazzar, H., 2009, *Model Checking and Artificial Intelligence: 5th International Workshop, MoChArt 2008 Patras, Greece, July 21, 2008, Revised Selected and Invited Papers*. Peled, D. A. & Wooldridge, M. J. (eds.). Berlin: Springer, Springer Nature, p. 65-89 25 p. (Lecture Notes in Computer Science; vol. 5348).

### **Goanna: syntactic software model checking**

Huuck, R., Fehnker, A., Seefried, S. & Brauer, J., 2008, *Automated Technology for Verification and Analysis: 6th International Symposium, ATVA 2008 Seoul, Korea, October 20-23, 2008, Proceedings*. Cha, S., Choi, J-Y., Kim, M., Lee, I. & Viswanathan, M. (eds.). Berlin: Springer, Springer Nature, p. 216-221 6 p. (Lecture Notes in Computer Science; vol. 5311).

### **Some assembly required: program analysis of embedded system code**

Fehnker, A., Huuck, R., Rauch, F. & Seefried, S., 2008, *Proceedings of Eighth IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM 2008)*. Cordy, J. R. & Zhang, L. (eds.). Los Alamitos, CA: Institute of Electrical and Electronics Engineers (IEEE), p. 15-24 10 p.

Goanna - a static model checker

Fehnker, A., Huuck, R., Jayet, P., Lussenburg, M. & Rauch, F., 2007, *Formal Methods: Applications and Technology: 11th International Workshop, FMICS 2006 and 5th International Workshop, PDMC 2006 Bonn, Germany, August 26-27, and August 31, 2006, Revised Selected Papers*. Brim, L., Haverkort, B. R., Leucker, M. & Pol, J. V. D. (eds.). Berlin: Springer, Springer Nature, p. 297-300 4 p. (Lecture Notes in Computer Science; vol. 4346).

Model checking software at compile time

Fehnker, A., Huuck, R., Jayet, P., Lussenburg, M. & Rauch, F., 2007, *Proceedings, First Joint IEEE/IFIP Symposium on Theoretical Aspects of Software Engineering, TASE 2007*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 45-56 10 p.

Modelling and verification of the LMAC protocol for wireless sensor networks

Fehnker, A., van Hoesel, L. & Mader, A., 2007, *Integrated Formal Methods: 6th International Conference, IFM 2007 Oxford, UK, July 2-5, 2007, Proceedings*. Davies, J. & Gibbons, J. (eds.). Berlin: Springer, Springer Nature, p. 253-272 20 p. (Lecture Notes in Computer Science; vol. 4591).

Hybrid system verification is not a sinecure: the electronic throttle control case study

Fehnker, A. & Krogh, B., Aug 2006, In: *International Journal of Foundations of Computer Science*. 17, 4, p. 885-902 18 p.

Formal verification and simulation for performance analysis for probabilistic broadcast protocols

Fehnker, A. & Gao, P., 2006, *Ad-Hoc, Mobile, and Wireless Networks: 5th International Conference, ADHOC-NOW 2006, Ottawa, Canada, August 17-19, 2006, Proceedings*. Kunz, T. & Ravi, S. S. (eds.). Berlin: Springer, Springer Nature, p. 128-141 14 p. (Lecture Notes in Computer Science; vol. 4104).

Refining abstractions of hybrid systems using counterexample fragments

Fehnker, A., Clarke, E., Jha, S. K. & Krogh, B., 2005, *Hybrid Systems: Computation and Control: 8th International Workshop, HSCC 2005 Zurich, Switzerland, March 9-11, 2005, Proceedings*. Morari, M. & Thiele, L. (eds.). Berlin: Springer, Springer Nature, p. 242-257 16 p. (Lecture Notes in Computer Science; vol. 3414).

Temporal logic model checking

Clarke, E., Fehnker, A., Jha, S. K. & Veith, H., 2005, *Handbook of Networked and Embedded Control Systems*. Hristu-Varsakelis, D. & Levine, W. S. (eds.). New York, NY: Birkhauser Boston, p. 539-558 20 p. (Control engineering).

Verification of a cruise control system using counterexample-guided search

Stursberg, O., Fehnker, A., Han, Z. & Krogh, B. H., Oct 2004, In: *Control Engineering Practice*. 12, 10, p. 1269-1278 10 p.

Benchmarks for hybrid systems verification

Fehnker, A. & Ivancic, F., 2004, *Hybrid Systems: Computation and Control: 7th International Workshop, HSCC 2004 Philadelphia, PA, USA, March 25-27, 2004, Proceedings*. Alur, R. & Pappas, G. J. (eds.). Berlin: Springer, Springer Nature , p. 326-341 16 p. (Lecture Notes in Computer Science; vol. 2993).

Managing verification activities using SVM

Aldrich, B., Fehnker, A., Feiler, P. H., Han, Z., Krogh, B. H., Lim, E. & Sivashankar, S., 2004, *Formal Methods and Software Engineering: 6th International Conference on Formal Engineering Methods, ICFEM 2004 Seattle, WA, USA, November 8-12, 2004, Proceedings*. Davies, J., Schulte, W. & Barnett, M. (eds.). Berlin: Springer, Springer Nature, p. 61-75 15 p. (Lecture Notes in Computer Science; vol. 3308).

Abstraction and counterexample-guided refinement in model checking of hybrid systems

Clarke, E., Fehnker, A., Han, Z., Krogh, B., Ouaknine, J., Stursberg, O. & Theobald, M., Aug 2003, In: *International Journal of Foundations of Computer Science*. 14, 4, p. 583-604 22 p.

Specification-guided analysis of hybrid systems using a hierarchy of validation methods

Stursberg, O., Fehnker, A., Han, Z. & Krogh, B. H., Jun 2003, In: *IFAC proceedings volumes*. 36, 6, p. 289-294 6 p.

Modeling and verifying a Lego car using hybrid I/O automata

Fehnker, A., Vaandrager, F. W. & Zhang, M., 2003, *Proceedings, Third International Conference on Quality Software, QSIC 2003*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 280-289 10 p.

Verification of hybrid systems based on counterexample-guided abstraction refinement

Clarke, E., Fehnker, A., Han, Z., Krogh, B., Stursberg, O. & Theobald, M., 2003, *Tools and Algorithms for the Construction and Analysis of Systems: 9th International Conference, TACAS 2003 Held as Part of the Joint European Conferences on Theory and Practice of Software, ETAPS 2003 Warsaw, Poland, April 7-11, 2003, Proceedings*. Garavel, H. & Hatcliff, J. (eds.). Berlin: Springer, Springer Nature, p. 192-207 16 p. (Lecture Notes in Computer Science; vol. 2619).

Verification and optimization of a PLC control schedule

Brinksma, E., Mader, A. & Fehnker, A., Oct 2002, In: *International Journal on Software Tools for Technology Transfer*. 4, 1 , p. 21-33 13 p.

As cheap as possible: efficient cost-optimal reachability for priced timed automata

Larsen, K., Behrmann, G., Brinksma, E., Fehnker, A., Hune, T., Petterson, P. & Romijn, J., 2001, *Computer Aided Verification: 13th International Conference, CAV 2001 Paris, France, July 18-22, 2001, Proceedings*. Berry, G., Comon, H. & Finkel, A. (eds.). Berlin: Springer, Springer Nature, p. 493-505 13 p. (Lecture Notes in Computer Science; vol. 2102).

Efficient guiding towards cost-optimality in UPPAAL

Behrmann, G., Fehnker, A., Hune, T., Larsen, K., Pettersson, P. & Romijn, J., 2001, *Tools and Algorithms for the Construction and Analysis of Systems: 7th International Conference, TACAS 2001 Held as Part of the Joint European Conferences on Theory and Practice of Software, ETAPS 2001 Genova, Italy, April 2-6, 2001, Proceedings*. Margaria, T. & Yi, W. (eds.). Berlin: Springer, Springer Nature, p. 174-188 15 p. (Lecture Notes in Computer Science; vol. 2031).

Minimum-cost reachability for priced timed automata

Behrmann, G., Fehnker, A., Hune, T., Larsen, K., Pettersson, P., Romijn, J. & Vaandrager, F., 2001, *Hybrid Systems: Computation and Control: 4th International Workshop, HSCC 2001 Rome, Italy, March 28-30, 2001, Proceedings*. Di Benedetto, M. D. & Sangiovanni-Vincentelli, A. (eds.). Berlin: Springer, Springer Nature, p. 147-161 15 p. (Lecture Notes in Computer Science; vol. 2034).

UPPAAL - now, next, and future

Amnell, T., Behrmann, G., Bengtsson, J., D'Argenio, P. R., David, A., Fehnker, A., Hune, T., Jeannet, B., Larsen, K. G., Möller, M. O., Pettersson, P., Weise, C. & Yi, W., 2001, *Modeling and Verification of Parallel Processes: 4th Summer School, MOVEP 2000 Nantes, France, June 19-23, 2000, Revised Tutorial Lectures*. Cassez, F., Jard, C., Rozoy, B. & Ryan, M. D. (eds.). Berlin: Springer, Springer Nature, p. 99-124 26 p. (Lecture Notes in Computer Science; vol. 2067).

Scheduling a steel plant with timed automata

Fehnker, A., 1999, *Proceedings, 6th International Conference on Real-Time Computing Systems and Applications, RTCSA 1999*. Los Alamitos, CA: Institute of Electrical and Electronics Engineers (IEEE), p. 280-286 7 p.

Automotive control revisited: linear inequalities as approximation of reachable sets

Fehnker, A., 1998, *Hybrid Systems: Computation and Control: First International Workshop, HSCC '98 Berkeley, California, USA, April 13-15, 1998, Proceedings*. Henzinger, T. A. & Sastry, S. (eds.). Berlin: Springer, Springer Nature, p. 110-125 16 p. (Lecture Notes in Computer Science; vol. 1386).

Operational and logical semantics for polling real-time systems

Dierks, H., Fehnker, A., Mader, A. & Vaandrager, F., 1998, *Formal Techniques in Real-Time and Fault-Tolerant Systems: 5th International Symposium, FTRTFT'98 Lyngby, Denmark, September 14-18, 1998, Proceedings*. Ravn, A. P. & Rischel, H. (eds.). Berlin: Springer, Springer Nature, p. 29-40 12 p. (Lecture Notes in Computer Science; vol. 1486).