

## Qualifications

1 Jan 2018 HDR Supervision Orientation 2018-2020, HDR30  
5 Dec 2017 HDR Supervision-MQ Policy/Procedures Refresher, HDR11  
17 May 2016 HDR Supervision Training (Historic Record), HDR99  
9 Mar 2015 HDR Supervision Training (Historic Record), HDR99

## Research output

### **Efficient and scalable runtime monitoring for cyber-physical system**

Zheng, X., Julien, C., Podorozhny, R., Cassez, F. & Rakotoarivelo, T., Jun 2018, In : IEEE Systems Journal. 12, 2, p. 1667-1678 12 p., 7605519.

### **ScalaSMT: Satisfiability Modulo Theory in Scala (tool paper)**

Cassez, F. & Sloane, A. M., 22 Oct 2017, *SCALA 2017: Proceedings of the 8th ACM SIGPLAN International Symposium on Scala*. New York, NY: Association for Computing Machinery, Inc, p. 51-55 5 p.

### **Real-time simulation support for runtime verification of cyber-physical systems**

Zheng, X., Julien, C., Chen, H., Podorozhny, R. & Cassez, F., Sep 2017, In : ACM Transactions on Embedded Computing Systems. 16, 4, p. 1-24 24 p., 106.

### **Refinement of trace abstraction for real-time programs**

Cassez, F., Jensen, P. G. & Guldstrand Larsen, K., 2017, *Reachability Problems: 11th International Workshop, RP 2017, Proceedings*. Hague, M. & Potapov, I. (eds.). Cham, Switzerland: Springer, Springer Nature, Vol. 10506. p. 42-58 17 p. (Lecture Notes in Computer Science; vol. 10506).

### **Skink: static analysis of programs in LLVM intermediate representation**

Cassez, F., Sloane, A. M., Roberts, M., Pigram, M., Suvanpong, P. & de Aledo, P. G., 2017, *Tools and algorithms for the construction and analysis of systems: 23rd International Conference, TACAS 2017, held as part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2017, Uppsala, Sweden, April 22-29, 2017. Proceedings, part II*. Legay, A. & Margaria, T. (eds.). Berlin: Springer, Springer Nature, p. 380-384 5 p. (Lecture notes in computer science; vol. 10206).

### **WUPPAAL: computation of worst-case execution-time for binary programs with UPPAAL**

Cassez, F., de Aledo, P. G. & Jensen, P. G., 2017, *Models, algorithms, logics and tools: Essays dedicated to Kim Guldstrand Larsen on the occasion of his 60th birthday*. Aceto, L., Bacci, G., Bacci, G., Ingólfssdóttir, A., Legay, A. & Mardare, R. (eds.). Cham: Springer, Springer Nature, p. 560-577 18 p. (Lecture Notes in Computer Science; vol. 10460).

### **The sbt-rats parser generator plugin for scala (tool paper)**

Sloane, A. M., Cassez, F. & Buckley, S., 30 Oct 2016, *SCALA 2016 - Proceedings of the 2016 7th ACM SIGPLAN Symposium on Scala*. Biboudis, A., Jonnalagedda, M., Stucki, S. & Ureche, V. (eds.). New York: Association for Computing Machinery, Inc, p. 110-113 4 p.

### **The complexity of synchronous notions of information flow security**

Cassez, F., van der Meyden, R. & Zhang, C., 6 Jun 2016, In : Theoretical Computer Science. 631, p. 16-42 27 p.

### **Timed automata for modelling caches and pipelines**

Cassez, F. & De Aledo Marugán, P. G., 8 Nov 2015, In : Electronic Proceedings in Theoretical Computer Science, EPTCS. 196, p. 37-45 9 p.

### **Control and synthesis of non-interferent timed systems**

Benattar, G., Cassez, F., Lime, D. & Roux, O. H., 1 Feb 2015, In : International Journal of Control. 88, 2, p. 217-236 20 p.

### **BraceAssertion: runtime verification of cyber-physical systems**

Zheng, X., Julien, C., Podorozhny, R. & Cassez, F., 2015, *Proceedings - 2015 IEEE 12th International Conference on Mobile Ad Hoc and Sensor Systems, MASS 2015*. Picataway, NJ: Institute of Electrical and Electronics Engineers (IEEE),

p. 298-306 9 p.

#### **Perentie: Modular trace refinement and selective value tracking (competition contribution)**

Cassez, F., Matsuoka, T., Pierzchalski, E. & Smyth, N., 2015, *Tools and Algorithms for the Construction and Analysis of Systems: 21st International Conference, TACAS 2015, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2015, London, UK, April 11-18, 2015, Proceedings*. Baier, C. & Tinelli, C. (eds.). Heidelberg: Springer, Springer Nature, p. 439-442 4 p. (Lecture Notes in Computer Science; vol. 9035).

#### **Verification of concurrent programs using trace abstraction refinement**

Cassez, F. & Ziegler, F., 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., Mclver, A. & Voronkov, A. (eds.). Heidelberg: Springer, Springer Nature, p. 233-248 16 p. (Lecture Notes in Computer Science; vol. 9450).

#### **Summary-based inter-procedural analysis via modular trace refinement**

Cassez, F., Müller, C. & Burnett, K., 1 Dec 2014, *34th International Conference on Foundation of Software Technology and Theoretical Computer Science, FSTTCS 2014*. Raman, V. & Suresh, S. P. (eds.). Dagstuhl, Germany: Schloss Dagstuhl- Leibniz-Zentrum für Informatik GmbH, Dagstuhl Publishing, Vol. 29. p. 545-556 12 p.

#### **Preface**

Cassez, F. & Raskin, J-F., 1 Jan 2014, *Automated Technology for Verification and Analysis: 12th International Symposium, ATVA 2014, Proceedings*. Cassez, F. & Raskin, J-F. (eds.). Switzerland: Springer, Springer Nature, 1 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 8837).

#### **Automated technology for verification and analysis: 12th International Symposium, ATVA 2014, Sydney, NSW, Australia, November 3-7, 2014, proceedings**

Cassez, F. (ed.) & Raskin, J-F. (ed.), 2014, Cham: Springer, Springer Nature. 430 p. (Lecture notes in computer science; vol. 8837)

#### **Braceassertion: behavior-driven development for cps application**

Zheng, X., Julien, C., Podorozhny, R. & Cassez, F., 2014, 12 p. Technical Report UTARISE-2015-002.

#### **Energy and mean-payoff timed games**

Brenguier, R., Cassez, F. & Raskin, J-F., 2014, *Proceedings of the 17th International Conference on Hybrid Systems: Computation and Control*. New York: Association for Computing Machinery, p. 283-292 10 p.

#### **The expressive power of time Petri nets**

Bérard, B., Cassez, F., Haddad, S., Lime, D. & Roux, O. H., 25 Feb 2013, In : *Theoretical Computer Science*. 474, p. 1-20 20 p.

#### **Predictability of event occurrences in timed systems**

Cassez, F. & Grastien, A., 2013, *Formal modeling and analysis of timed systems: 11th International Conference, FORMATS 2013, Buenos Aires, Argentina, August 29-31, 2013. Proceedings*. Braberman, V. & Fribourg, L. (eds.). Berlin: Springer, Springer Nature, p. 62-76 15 p. (Lecture Notes in Computer Science; vol. 8053).

#### **PtrTracker: Pragmatic pointer analysis**

Biallas, S., Olesen, M. C., Cassez, F. & Huuck, R., 2013, *IEEE 13th International Working Conference on Source Code Analysis and Manipulation (SCAM 2013)*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 69-73 5 p. 6648186

#### **Timing analysis of binary programs with UPPAAL**

Cassez, F. & Bechennec, J. L., 2013, *Proceedings 2013 13th International Conference on Application of Concurrency to System Design: ACSD 2013*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 41-50 10 p. 6598339

### **High performance static analysis for industry**

Bradley, M., Cassez, F., Fehnker, A., Given-Wilson, T. & Huuck, R., 6 Dec 2012, In : *Electronic Notes in Theoretical Computer Science*. 289, p. 3-14 12 p.

### **Controllers with minimal observation power (application to timed systems)**

Bulychev, P., Cassez, F., David, A., Larsen, K. G., Raskin, J. F. & Reynier, P. A., Oct 2012, *Automated Technology for Verification and Analysis: 10th International Symposium, ATVA 2012, Thiruvananthapuram, India, October 3-6, 2012. Proceedings*. Chakraborty, S. & Mukund, M. (eds.). Berlin: Springer, Springer Nature, p. 223-237 15 p. (Lecture Notes in Computer Science; vol. 7561).

### **Synthesis of opaque systems with static and dynamic masks**

Cassez, F., Dubreil, J. & Marchand, H., Feb 2012, In : *Formal Methods in System Design*. 40, 1, p. 88-115 28 p.

### **The complexity of codiagnosability for discrete event and timed systems**

Cassez, F., 2012, In : *IEEE Transactions on Automatic Control*. 57, 7, p. 1752-1764 13 p., 6125230.

### **What is a timing anomaly?**

Cassez, F., Hansen, R. R. & Olesen, M. C., 2012, *12th International Workshop on Worst-Case Execution Time Analysis: WCET'12, July 10, 2012, Pisa, Italy*. Vardanega, T. (ed.). Dagstuhl: Schloss Dagstuhl- Leibniz-Zentrum für Informatik GmbH, Dagstuhl Publishing, p. 1-12 12 p. (OASIS - OpenAccess Series in Informatics; vol. 23).

### **Timed modal logics for real-time systems**

Bouyer, P., Cassez, F. & Laroussinie, F., Apr 2011, In : *Journal of Logic, Language and Information*. 20, 2, p. 169-203 35 p.

### **Computation of WCET using Program Slicing and Real-Time Model-Checking**

Béchenec, J-L. & Cassez, F., 2011, CoRR.

### **Timed games for computing WCET for pipelined processors with caches**

Cassez, F., 2011, *2011 Eleventh International Conference on Application of Concurrency to System Design (ACSD 2011)*. Caillaud, B., Carmona, J. & Hiraishi, K. (eds.). Los Alamitos, CA: Institute of Electrical and Electronics Engineers (IEEE), p. 195-204 10 p. (Application of Concurrency to System Design).

### **Comparison of expressiveness for timed automata and time Petri nets**

Bérard, B., Cassez, F., Haddad, S., Lime, D. & Roux, O. H., 3 Feb 2010, *Combinatorial optimization and theoretical computer science*. Paschos, V. T. (ed.). London; Hoboken, NJ: ISTE - Wiley, p. 93-144 52 p.

### **Control of timed systems**

Cassez, F. & Markey, N., 2010, *Communicating embedded systems: software and design : formal methods*. Jard, C. & Roux, O. H. (eds.). London; Hoboken, N.J.: John Wiley & Sons, p. 67-105 39 p.

### **Dynamic observers for fault diagnosis of timed systems**

Cassez, F., 2010, *2010 49th IEEE Conference on Decision and Control (CDC 2010)*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 4359-4364 6 p. 5717696. (Proceedings of the IEEE Conference on Decision & Control).

### **Fault diagnosis of timed systems**

Cassez, F. & Tripakis, S., 2010, *Communicating embedded systems: software and design : formal methods*. Jard, C. & Roux, O. H. (eds.). London; Hoboken, N.J.: John Wiley & Sons, p. 107-138 32 p.

### **The complexity of codiagnosability for discrete event and timed systems**

Cassez, F., 2010, *Automated Technology for Verification and Analysis: 8th International Symposium, ATVA 2010 Singapore, September 21-24, 2010 Proceedings*. Bouajjani, A. & Chin, W-N. (eds.). Berlin; Heidelberg: Springer, Springer Nature, p. 82-96 15 p. (Lecture Notes in Computer Science; vol. 6252).

### **The complexity of synchronous notions of information flow security**

Cassez, F., Van Der Meyden, R. & Zhang, C., 2010, *Foundations of Software Science and Computational Structures : 13th International Conference, FOSSACS 2010 Held as Part of the Joint European Conferences on Theory and Practice of Software, ETAPS 2010 Paphos, Cyprus, March 20-28, 2010, Proceedings*. Ong, L. (ed.). Berlin; Heidelberg: Springer, Springer Nature, p. 282-296 15 p. (Lecture Notes in Computer Science; vol. 6014).

### **A note on fault diagnosis algorithms**

Cassez, F., 2009, *Proceedings of the 48th IEEE Conference on Decision and Control (CDC) held jointly with 2009 28th Chinese Control Conference*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 6941-6946 6 p. 5399968

### **Automatic synthesis of robust and optimal controllers - An industrial case study**

Cassez, F., Jessen, J. J., Larsen, K. G., Raskin, J. F. & Reynier, P. A., 2009, *Hybrid systems: computation and control: 12th International Conference, HSCC 2009, San Francisco, CA, USA, April 2009, proceedings*. Majumdar, R. & Tabuada, P. (eds.). Berlin: Springer, Springer Nature, p. 90-104 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 5469).

### **Dynamic observers for the synthesis of opaque systems**

Cassez, F., Dubreil, J. & Marchand, H., 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. 352-367 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 5799 LNCS).

### **Synthesis of non-interferent timed systems**

Benattar, G., Cassez, F., Lime, D. & Roux, O. H., 2009, *Formal modeling and analysis of timed systems: 7th International Conference, FORMATS 2009, Budapest, Hungary, September 2009, proceedings*. Ouaknine, J. & Vaandrager, F. W. (eds.). Berlin: Springer, Springer Nature, p. 28-42 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 5813 LNCS).

### **The dark side of timed opacity**

Cassez, F., 2009, *Advances in information security and assurance: Third International Conference and Workshops, ISA 2009, Seoul, Korea, June 25-27, 2009, proceedings*. Park, J. H., Chen, H-H., Atiquzzaman, M., Lee, C., Kim, T. & Yeo, S-S. (eds.). Berlin: Springer, Springer Nature, p. 21-30 10 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 5576 LNCS).

### **When are Timed Automata weakly timed bisimilar to Time Petri Nets?**

Bérard, B., Cassez, F., Haddad, S., Lime, D. & Roux, O. H., 28 Aug 2008, In : *Theoretical Computer Science*. 403, 2-3, p. 202-220 19 p.

### **Fault diagnosis with dynamic observers**

Cassez, F. & Tripakis, S., 2008, *Proceedings 9th International Workshop on Discrete Event Systems WODES' 08*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 212-217 6 p. 4605947

### **Fault diagnosis with static and dynamic observers**

Cassez, F. & Tripakis, S., 2008, In : *Fundamenta Informaticae*. 88, 4, p. 497-540 44 p.

### **Lecture Notes in Computer Science: preface**

Cassez, F. & Jard, C., 2008, In : *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. 5215 LNCS, p. VI 1 p.

### **Semantics of Biological Regulatory Networks**

Bernot, G., Cassez, F., Comet, J. P., Delaplace, F., Müller, C. & Roux, O., 18 Jul 2007, In : *Electronic Notes in Theoretical Computer Science*. 180, 3, p. 3-14 12 p.

#### **Efficient on-the-fly algorithms for partially observable timed games**

Cassez, F., 2007, *Formal Modeling and Analysis of Timed Systems - 5th International Conference, FORMATS 2007, Proceedings*. Berlin; New York: Springer, Springer Nature, Vol. 4763 LNCS. p. 5-24 20 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 4763 LNCS).

#### **Sensor Minimization Problems with Static or Dynamic Observers for Fault Diagnosis**

Cassez, F., Tripakis, S. & Altisen, K., 2007, *Proceedings - 7th International Conference on Application of Concurrency to System Design, ACSD 2007*. Los Alamitos, Calif.: Institute of Electrical and Electronics Engineers (IEEE), p. 90-99 10 p. 4276268

#### **Synthesis of non-interferent distributed systems**

Cassez, F., Mullins, J. & Roux, O. H., 2007, *Computer Network Security - Fourth International Conference on Mathematical Methods, Models, and Architectures for Computer Network Security, MMM-ACNS 2007, Proceedings*. Berlin; New York: Springer, Springer Nature, Vol. 1. p. 159-170 12 p. (Communications in Computer and Information Science; vol. 1).

#### **Synthesis of optimal-cost dynamic observers for fault diagnosis of discrete-event systems**

Cassez, F., Tripakis, S. & Altisen, K., 2007, *First Joint IEEE/IFIP Symposium on Theoretical Aspects of Software Engineering, TASE '07*. Las Alamitos, Calif.: Institute of Electrical and Electronics Engineers (IEEE), p. 316-325 10 p. 4239975

#### **Timed control with observation based and stuttering invariant strategies**

Cassez, F., David, A., Larsen, K. G., Lime, D. & Raskin, J. F., 2007, *Automated Technology for Verification and Analysis - 5th International Symposium, ATVA 2007, Proceedings*. Berlin; New York: Springer, Springer Nature, Vol. 4762 LNCS. p. 192-206 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 4762 LNCS).

#### **Structural translation from Time Petri Nets to Timed Automata**

Cassez, F. & Roux, O. H., Oct 2006, In : *Journal of Systems and Software*. 79, 10, p. 1456-1468 13 p.

#### **Monitoring and fault-diagnosis with digital clocks**

Altisen, K., Cassez, F. & Tripakis, S., 2006, *Proceedings : Sixth International Conference on Application of Concurrency to System Design, ACSD 2006*. Piscataway, NJ: Institute of Electrical and Electronics Engineers (IEEE), p. 101-110 10 p. 1640228

#### **Symbolic unfoldings for networks of timed automata**

Cassez, F., Chatain, T. & Jard, C., 2006, *Automated Technology for Verification and Analysis - 4th International Symposium, ATVA 2006: proceedings*. Graf, S. & Zhang, W. (eds.). Heidelberg, Germany: Springer, Springer Nature, Vol. 4218 LNCS. p. 307-321 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 4218 LNCS).

#### **Structural translation from time Petri Nets to timed automata**

Cassez, F. & Roux, O. H., 23 May 2005, In : *Electronic Notes in Theoretical Computer Science*. 128, 6, p. 145-160 16 p.

#### **Synthesis of optimal strategies using HyTech**

Bouyer, P., Cassez, F., Fleury, E. & Larsen, K. G., 2 Feb 2005, In : *Electronic Notes in Theoretical Computer Science*. 119, SPEC. ISS., p. 11-31 21 p.

#### **Comparison of different semantics for time Petri nets**

Bérard, B., Cassez, F., Haddad, S., Lime, D. & Roux, O. H., 2005, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. Berlin: Springer, Springer Nature, Vol. 3707 LNCS. p. 293-307 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 3707 LNCS).

#### **Comparison of the expressiveness of timed automata and time Petri nets**

Bérard, B., Cassez, F., Haddad, S., Lime, D. & Roux, O. H., 2005, *Formal Modeling and Analysis of Timed Systems - Third International Conference, FORMATS 2005, Proceedings*. Heidelberg: Springer, Springer Nature, Vol. 3829 LNCS.

p. 211-225 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 3829 LNCS).

#### **Efficient on-the-fly algorithms for the analysis of timed games**

Cassez, F., David, A., Fleury, E., Larsen, K. G. & Lime, D., 2005, In : Lecture Notes in Computer Science. 3653, p. 66-80 15 p.

#### **Introduction au contrôle des systèmes temps-réel**

Altisen, K., Bouyer, P., Cachat, T., Cassez, F. & Gardey, G., 2005, In : Journal European des Systemes Automatises. 39, 1-3, p. 367-380 14 p.

#### **Modal logics for timed control**

Bouyer, P., Cassez, F. & Laroussinie, F., 2005, In : Lecture Notes in Computer Science. 3653, p. 81-94 14 p.

#### **When are timed automata weakly timed bisimilar to time petri nets?**

Bérard, B., Cassez, F., Haddad, S., Lime, D. & Roux, O. H., 2005, *FSTTCS 2005: Foundations of Software Technology and Theoretical Computer Science - 25th International Conference, Proceedings*. New York: Springer, Springer Nature, Vol. 3821 LNCS. p. 273-284 12 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 3821 LNCS).

#### **A timed extension for ALTARICA**

Cassez, F., Pagetti, C. & Roux, O., 2004, In : Fundamenta Informaticae. 62, 3-4, p. 291-332 42 p.

#### **Optimal strategies in priced timed game automata**

Bouyer, P., Cassez, F., Fleury, E. & Larsen, K. G., 2004, In : Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics). 3328, p. 148-160 13 p.

#### **A comparison of control problems for timed and hybrid systems**

Cassez, F., Henzinger, T. A. & Raskin, J. F., 2002, *Hybrid Systems: Computation and Control : 5th International Workshop, HSCC 2002, Proceedings*. Tomlin, C. & Greenstreet, M. (eds.). Berlin; Heidelberg: Springer, Springer Nature, Vol. 2289. p. 134-148 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 2289).

#### **Extending the translation from SDL to promela**

Prigent, A., Cassez, F., Dhaussy, P. & Roux, O., 2002, *Model Checking Software - 9th International SPIN Workshop, Proceedings*. Bošnački, D. & Leue, S. (eds.). Berlin; New York: Springer, Springer Nature, Vol. 2318 LNCS. p. 79-94 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 2318 LNCS).

#### **Verification of embedded reactive fifo systems**

Herbreteau, F., Cassez, F., Finkel, A., Roux, O. & Sutre, G., 2002, *LATIN 2002 : Theoretical Informatics - 5th Latin American Symposium, Proceedings*. Rajsbaum, S. (ed.). Berlin; Heidelberg: Springer, Springer Nature, Vol. 2286. p. 400-414 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 2286).

#### **Application of partial-order methods to reactive programs with event memorization**

Herbreteau, F., Cassez, F. & Roux, O., May 2001, In : Real-Time Systems. 20, 3, p. 287-316 30 p.

#### **Proving feature non-interaction with alternating-time temporal logic**

Cassez, F., Ryan, M. D. & Schobbens, P.-Y., 2001, *Language constructs for describing features: proceedings of the FIREworks workshop*. Gilmore, S. & Ryan, M. D. (eds.). London: Springer, Springer Nature, p. 85-103 19 p.

#### **Model-checking for hybrid systems by quotienting and constraints solving**

Cassez, F. & Laroussinie, F., 2000, *Computer Aided Verification - 12th International Conference, CAV 2000, Proceedings*. Berlin; Heidelberg: Springer, Springer Nature, Vol. 1855. p. 373-388 16 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 1855).

**The impressive power of stopwatches**

Cassez, F. & Larsen, K., 2000, *CONCUR 2000 - Concurrency Theory: 11th International Conference, Proceedings*. Berlin; Heidelberg, Vol. 1877 LNCS. p. 138-152 15 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 1877 LNCS).

**Effective recognizability and model checking of reactive fifo automata**

Sutre, G., Finkel, A., Roux, O. & Cassez, F., 1999, *Algebraic methodology and software technology: 7th International Conference, AMAST'98 Amazonia, Brazil, January 4-8, 1999 Proceedings*. Haebeler, A. M. (ed.). Berlin: Springer, Springer Nature, Vol. 1548. p. 106-123 18 p. (Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics); vol. 1548).

**Hybrid verifications of reactive programs**

Roux, O., Rusu, V. & Cassez, F., 1999, In : *Formal Aspects of Computing*. 11, 4, p. 448-471 24 p.

**Formal semantics for reactive Grafcet**

Cassez, F., 1997, In : *Journal Europeen des Systemes Automatises*. 31, 3, p. 581-603 23 p.

**Compilation of the ELECTRE reactive language into finite transition systems**

Cassez, F. & Roux, O., 24 Jul 1995, In : *Theoretical Computer Science*. 146, 1-2, p. 109-143 35 p.

## Research Projects

Automated software verification

Automatic computation of worst-case execution time (WCET analysis)

Formal modeling and analysis of timed systems