

# Dominique Méry's Home Page

Dominique Méry  
LORIA & Telecom Nancy  
Université de Lorraine

`https://members.loria.fr/Mery`  
`dominique-dot-mery-at-loria-dot-fr`

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Dominique Méry is professor of computing science at Université de Lorraine, where he teaches formal methods and related topics in the school of computer engineering Telecom Nancy and in the Faculty of Science and Technology. His research activities are developed in the laboratory LORIA joint structure of CNRS, INRIA and Université de Lorraine. You can contact him using the email of LORIA.

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## 1 Last News

The preprint is entitled NOTES ON THE MODELLING LANGUAGE EVENT-B and is provided for students.

The preprint is entitled DESIGN OF CORRECT BY CONSTRUCTION SEQUENTIAL ALGORITHMS and is provided for students.

The preprint entitled Teaching formal techniques with Event-B and Rodin is a companion paper for my talk at JS2025 *J.R. Abrial, un pionnier du développement scientifique*.

## 2 Teaching

Using Event-B for checking contracts is an experiment carried out at Telecom Nancy to present contracts in several forms and was presented at the FMT workshop (see publication).

Lectures MOSOS on formal modelling that I teach in the third year of Telecom Nancy (corresponding to the fifth year at University) and in the University's Masters in Computer Science. Part of the course is taught at Maynooth University in Ireland as part of Rosemary Monahan's course on my formal methods.

Lectures MVSI on verification and modelling of programs.

## 3 Research

### 3.1 Current scientific activities

My current scientific activities focus on proof-based development of distributed algorithms using the refinement, as well as modelling and certification of medical devices.

First, distributed algorithms, recently redeveloped by refinement, are population protocols which are leading to extension of the refinement, and self- $\star$  algorithms. The main difficulty is to deal with liveness and fairness properties, when considering population protocols for instance, and with explicit assumptions as for instance oracles for faults.

Second, medical devices lead to propose a refinement-based methodology applicable for certification of cyber-physical systems and human-in-the-loop systems. Two collaborations (NASA Ames and CHU Nancy) are interacting with us for these topics.

Finally, the IMPEX (<http://impex.loria.fr>) project leads me to deal with the integration of the explicit semantics in proof-based development of software systems. Recently, I have obtained two new projects ANR FORMEDICIS (2017-2022) on verification of HMI, extending IMPEX, and ANR project DISCONT (<http://discont.loria.fr>) on hybrid models and refinement.

## 4 Curriculum Vitae

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MÉRY Dominique, born on the 18th of September 1958, married to Odile, five children (Fabien 1984-; Nicolas 1987-; Florent (1992-2001); Thibaut (1994-); Claire (1996-)).

Professor of Computer Science, CLasse exceptionnelle 2010, at Université de Lorraine and appointed to the school *Telecom Nancy* .

## 4.1 Titles and Diploms

- Maîtrise in Pures Mathematics in June 1980
- MSc in Computer Science (DEA d'Informatique) in June 1981
- Doctorate troisième cycle at Institut National Polytechnique de Lorraine (October 1981-May 1983) ;
- Doctorate ès-sciences mathématiques at Université Nancy 1 (Defense on February 26, 1993) ;

## 4.2 Professional Records

- PhD Grant DGRST at CRIN CNRS URA 262 Laboratory, Nancy (November 1, 1981 till November 30, 1982) ;
- Université de Metz :
  - Assistant (December 1, 1982 till December 1, 1983) ;
  - Maître-Assistant (December 1, - January 1, 1985) ;
  - Maître de Conférences (January 1, 1985 till March 1, 1988) ;
- Chargé de recherche au CNRS, CRIN URA 262, Nancy (March 1, 1988 till September 1, 1993)
- Professeur des Universités, section 27 du CNU, à l' Université Henri Poincaré - Nancy I since September 1, 1993 (First Class in 2000, Exceptional Class 2010).
- On leave during a year from September 1992 till September 1993 at Stirling University, Scotland, UK.

## 4.3 National and International Implications:

### 4.3.1 Grants, Prices and Reputation

- Member of the Institut Universitaire de France nominated by Ministre de l'Enseignement Supérieur et de la Recherche [1995-2000].
- Grant for research and PhD supervision (PEDR) (from 1994 till 2009).
- Grant for Scientific Excellence (PES), Grad A ( 2009-2013 and 2013-2017).
- Member of the IFIP Working Group 1.3 *Foundations of System Specification*.
- Price of the Academy Stanislas in 2012
- *Palme Académiques* on the 14th of July 2012

#### 4.3.2 Assessment and Scientific Expertise

- PC Member: RenPar (RenPar'98, RenPar'99, RenPar'2000, Renpar2001, Renpar2002, Renpar2003), Perspectives in System Informatics PSI (2001, 2003, 2006, 2009), International Conference on Formal Engineering Methodology (ICFEM 2000, ICFEM 2002, ICFEM2005, ICFEM 2009, ICFEM 2010, ICFEM 2011, ICFEM 2012, ICFEM2014), Formal Methods Europe (FME 1997, FME 2001, FM 2006, FM 2008, FM 2009, FM 2012, FM 2014, FM 2015, FM 2016, FM2018), Integrated Formal Methods (IFM 1999, IFM 2000, IFM 2002, IFM 2004, IFM 2005, IFM 2007, IFM 2009, IFM 2010 (Cochair), IFM 2012, IFM 2014, IFM 2016, IFM2017, IFM2018), ABZ (2008,2010,2014,2016,2018), FASE 2008, CAL 2008, CAL 2009, CAL 2010, ISOLA (2007,2010,2012), DS-Event-B 2012, FHIES (2011,2012,2013), MEDI (2011,2012,2014,2015,2016,2017), PSI 2011, SEFM (2010;2017), TASE 2012, AFADL 2014, FACS 2014, FHIES/SEHC 2014, GDR-PhD2014, GPL2014, ICECCS 2014, iHARNESS 2014, ICECCS (2012,2013,2015,2017), ICTAC (2015,2016,2017).
- CoChair and CoEditor of FMMPTA96, FMPPTA97, FMPPTA98, FMPPTA99, MSR2003, IFM2010, FM2012, FIDE2014, FIDE2015, ICTAC2014
- Expertise: european community for the programme LTR; expert for CIFRE Grants; external referres for promotion of researchers or professors in foreign universities (University of UTAH at Salt Lake City, University of Cambridge, UK, Docent at Turku); expert for NSF (ITR in June 2000; expert for Enterprise Ireland (2001 and 2002); referee for french and foreign PhD (more than 30 PhD), expert DS9 in July 2004, July 2006 and September 2007; Expert ANR; Expert NSERC Canada.
- Expertise AERES: Ten PhD Schools (Cergy, Pau, 3 in Lyon, Chambéry, Bretagne (2), Paris (Villetaneuse, Ecole de Médecine), Nice, Paris Est (2) and two laboratory (LACL,LIURPA).
- Member of the Editorial Board of the journal *Formal Aspects of Computing - Applicable Formal Methods*, Springer.

#### 4.3.3 Scientific Management

- Deputy Head of the team PROGRAIS joint to CRIN and INRIA Lorraine (1989-1992) (10 permanent stuffs, 5-to-8 PhD students)
- Head of the research department *Formal Methods* (<http://fm.loria.fr>) of the LORIA laboratory (5 departments in LORIA) June 2011 - July 2015 with 35 permament staffs (Professors, Assistant Professors, Senior/Junior Researchers) structured in teams or projects: CARTE (LORIA & INRIA) , CASSIS (LORIA & INRIA), DEDALE (LORIA), MOSEL (LORIA ), TYPES (LORIA) (LORIA), PAREO (LORIA & INRIA), VERIDIS (LORIA & INRIA & SAARLAND).
- Head of the PPF IAEM Lorraine (transversal research programme) 2004-2008 integrating research activities in Computer Science, Automatic Control, Electrical Engineering and Mathematics (40 000 euros per year) (The project involved the laboratories in Mathematics, Computse Science and Automation of the Lorraine Région).
- Creation and heading of the team MODEL in 1994 at CRIN, then at LORIA opn formal methods and applications (1994 till 2004).

- Head of the team MOSEL (<http://mosel.loria.fr>) of LORIA laboratory and INRIA Project MOSEL( 2004 - 2008) on *Proof-based development of software systems* (10 permanent stuffs and 3-to-5 PhD students).
- Deputy Director of CRIN laboratory from 1994 till 1996 (laboratory in computer science joint to the three former universities of Nancy gathering more than 100 university teachers, 50 CNRS or INRIA researchers, 100 PhD Students);

#### 4.3.4 Administrative and social activities

- Head of DEA Informatique from 2000 till 2005 (DEA was the name of the Master before 2005 in France).
- Member of the Education Board of Université Henri Poincaré 2000-2004
- Member of the Scientific Council of Université Henri Poincaré 2004-2008.
- Head of the joint degree C2I of Université Henri Poincaré Nancy 1 (C2I stands for Certificate for Computer Science en Internet) from 2004 till 2008 (any student of one of the three first year has to prepare it in any section).
- Creation et heading of the MSc in Computer Science joint to the three former universities of Nancy 2005-2009: 7 specialities (3 Professional and 4 Research) and 120 students per year. .
- President of the association APCB since 2007 (association for promoting the B method)
- Member of the Scientific Council of the joint national programme *GDR Génie de la Programmation et du Logiciel* 2008-2012 and 2012-2017.
- Head of the PhD School ED 0077 IAEM Lorraine (300 students of 11 laboratories) October 1, 2008 - September 1, 2017 (<http://www.iaem.univ-lorraine.fr>).
- Member of the Scientific Council of Université de Lorraine since April 2012 - April 2017,

## 5 List of PhD Supervisions

- Manamiary Bruno Andriamiarina. *Modélisation de Systèmes Répartis Dynamiques*. PhD thesis, Université de Lorraine, November 2015.
- Nazim Benaïssa. *La composition des protocoles de sécurité avec la méthode B événementielle*. Thèse d'université, UHP, May 2010.
- Naima Brown. *Vérification et mise en oeuvre distribuée des programmes UNITY*. PhD thesis, Université Henri Poincaré-Nancy 1, octobre 1994.
- François Carrez. *Spécification, vérification et raffinement de réseaux de processus communicants*. PhD thesis, Université Henri Poincaré-Nancy 1, mai 1991. en codirection avec Jean-Pierre Finance.
- Raphaël Couturier. *Utilisation des méthodes formelles pour le développement de programmes parallèles*. PhD thesis, Université Henri Poincaré-Nancy 1, janvier 2000.

- Souad Kherroubi. *Un cadre formel pour l'intégration de connaissances du domaine dans la conception des systèmes : application au formalisme Event-B*. PhD thesis, Université de Lorraine, December 2018.
- Romain Lieber. *Spécification d'exigences physico-physiologiques en ingénierie d'un système support de maintenance aéronautique*. PhD thesis, Université de Lorraine, 2013.
- Bruno Mermet. *Qualité de services dans une logique temporelle compositionnelle*. PhD thesis, Université Henri Poincaré-Nancy 1, février 1998.
- Yassine Mokhtari. *Validation des spécifications formelles de la logique temporelle des actions*. PhD thesis, Université Henri Poincaré-Nancy 1, février 2000.
- Abdelillah Mokkedem. *Vérification et raffinement de programmes parallèles dans une logique temporelle compositionnelle - Application au langage SDL*. PhD thesis, Institut Polytechnique de Lorraine, avril 1994.
- Julien Peyroux. *Equations de Vlasov et calculs des solutions*. Thèse d'université, UHP, November 2006.
- Cyril Proch. *Développement incrémental et prouvé de systèmes sur puces*. Thèse d'université, UHP, March 2006.
- Armand Pucetti. *Preuves de propriétés de fatalité temps-réel de programmes ADA, sémantique opérationnelle et axiomatique associées*. PhD thesis, Institut Polytechnique de Lorraine, septembre 1987. en codirection avec Patrick Cousot.
- Denis Roegel. *Etude de la sémantique de programmes parallèles réels en TLA*. PhD thesis, Université Henri Poincaré-Nancy 1, novembre 1996.
- Dimitri Samborski. *Problème d'interaction des services téléphoniques*. Thèse d'université, INPL, October 2000.
- Neeraj Kumar Singh. *Fiabilité et sûreté des systèmes informatiques critiques*. Thèse d'université, UHP, October 2011.

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## 6 Publications

### 6.1 On HAL

List of publications pon HAL

### 6.2 On DBLP

List of publications on DBLP

## 6.3 My list of publications

### Books, monographs and proceedings

- [1] D. MÉRY (réd.). – *First International Workshop on Formal Methods for Parallel Programming: Theory and Applications*, IEEE Technical Computer Society Technical Committee, IPPS. – Hawaii. USA, CRIN, avril 1996.
- [2] D. MÉRY (réd.). – *Second International Workshop on Formal Methods for Parallel Programming: Theory and Applications*, IEEE Technical Computer Society Technical Committee, IPPS. – Geneva. Switzerland, LORIA UMR 7503 Laboratoire Lorrain de Recherche en Informatique et Applications, avril 1997.
- [3] D. MÉRY (réd.). – *Edition Spéciale FMPPTA98, Parallel Processing Letters*. – World Scientific, December 1998.
- [4] D. MÉRY, G.-R. PERRIN (réd.). – *Edition Spéciale RenPar'10 Dixièmes Rencontres Francophones du Parallélisme, Techniques et Sciences Informatiques*. – HERMES, Mai 1998.
- [5] D. MÉRY, G.-R. PERRIN (réd.). – *RenPar'10 Dixièmes Rencontres Francophones du Parallélisme*. ICPS et LORIA. – ICPS et LORIA, 9-12 Juin 1998.
- [6] D. MÉRY, B. SANDERS (réd.). – *Third International Workshop on Formal Methods for Parallel Programming: Theory and Applications*, IEEE Technical Computer Society Technical Committee, IPPS. – Orlando, Florida USA, LORIA UMR 7503 Laboratoire Lorrain de Recherche en Informatique et Applications, avril 1998.
- [7] D. MÉRY, B. SANDERS (réd.). – *Fourth International Workshop on Formal Methods for Parallel Programming: Theory and Applications, Lecture Notes in Computer Science*, IEEE Technical Computer Society Technical Committee, IPPS. – Puerto Rico, Springer Verlag, avril 1999.
- [8] D. MÉRY, N. REZG, X. XIE (réd.). – *Modélisation des systèmes réactifs MSR 2003*. – Hermès Lavoisier, 2003.
- [9] D. MÉRY, S. MERZ (réd.). – *Integrated Formal Methods, Lecture Notes in Computer Science*, 6396. – Springer, octobre 2010, 335p.
- [10] D. GIANNAKOPOULOU, D. MÉRY (réd.). – *FM 2012: Formal Methods - 18th International Symposium, Paris, France, August 27-31, 2012. Proceedings, LNCS, 7436*. – Springer, août 2012, 488p.
- [11] G. CIOBANU, D. MÉRY (réd.). – *Theoretical Aspects of Computing - ICTAC 2014 - 11th International Colloquium, Bucharest, Romania, September 17-19, 2014. Proceedings, Lecture Notes in Computer Science*, 8687. – Springer, 2014.
- [12] C. DUBOIS, D. GIANNAKOPOULOU, D. MÉRY (réd.). – *Proceedings 1st Workshop on Formal Integrated Development Environment, F-IDE 2014, Grenoble, France, April 6, 2014, EPTCS, 149*. – 2014.
- [13] C. DUBOIS, P. MASCI, D. MÉRY (réd.). – *Proceedings Second International Workshop on Formal Integrated Development Environment, F-IDE 2015, Oslo, Norway, June 22, 2015, EPTCS, 187*. – 2015.
- [14] C. DUBOIS, P. MASCI, D. MÉRY (réd.). – *Proceedings of the Third Workshop on Formal Integrated Development Environment, F-IDE@FM 2016, Limassol, Cyprus, November 8, 2016, EPTCS, 240*. – 2017.



- [15] E. H. ABDELWAHED, L. BELLATRECHE, D. BENSLIMANE, M. GOLFARELLI, S. JEAN, D. MÉRY, K. NAKAMATSU, C. ORDONEZ (réd.). – *New Trends in Model and Data Engineering - MEDI 2018 International Workshops, DETECT, MEDI4SG, IWCFS, REMEDY, Marrakesh, Morocco, October 24-26, 2018, Proceedings, Communications in Computer and Information Science*, 929. – Springer, 2018.
- [16] E. H. ABDELWAHED, L. BELLATRECHE, M. GOLFARELLI, D. MÉRY, C. ORDONEZ (réd.). – *Model and Data Engineering - 8th International Conference, MEDI 2018, Marrakesh, Morocco, October 24-26, 2018, Proceedings, Lecture Notes in Computer Science*, 11163. – Springer, 2018.
- [17] R. LALEAU, D. MÉRY, S. NAKAJIMA, E. TROUBITSYNA (réd.). – *Proceedings Joint Workshop on Handling IMPLICIT and EXPLICIT knowledge in formal system development (IMPEX) and Formal and Model-Driven Techniques for Developing Trustworthy Systems (FM&MDD), IMPEX/FM&MDD 2017, and Formal and Model-Driven Techniques for Developing Trustworthy Systems (FM&MDD) Xi'An, China, 16th November 2017, EPTCS*, 271. – 2018.
- [18] D. MÉRY, S. QIN (réd.). – *2019 International Symposium on Theoretical Aspects of Software Engineering (TASE)*, Xianxian Li and Zhi Li. – Guillin, China, IEEE, novembre 2019.
- [19] A. RASCHKE, D. MÉRY, F. HOUDEK (réd.). – *Rigorous State-Based Methods - 7th International Conference, ABZ 2020, Ulm, Germany, May 27-29, 2020, Proceedings, Rigorous State-Based Methods - 7th International Conference, ABZ 2020, Ulm, Germany, May 27-29, 2020, Proceedings, Lecture Notes in Computer Science*, 12071, Alexander Raschke. – ULM, Germany, Springer, mai 2020.
- [20] Y. AÏT-AMEUR, S. NAKAJIMA, D. MÉRY (réd.). – *Implicit and Explicit Semantics Integration in Proof-Based Developments of Discrete Systems*. – Springer Singapore, 2021.
- [21] A. RASCHKE, D. MÉRY (réd.). – *Rigorous State-Based Methods - 8th International Conference, ABZ 2021, Ulm, Germany, June 9-11, 2021, Proceedings, Lecture Notes in Computer Science*, 12709. – Springer, 2021.
- [22] U. GLÄSSER, J. C. CAMPOS, D. MÉRY, P. A. PALANQUE (réd.). – *Rigorous State-Based Methods - 9th International Conference, ABZ 2023, Nancy, France, May 30 - June 2, 2023, Proceedings, Lecture Notes in Computer Science*, 14010. – Springer, 2023.
- [23] K. OGATA, D. MÉRY, M. SUN, S. LIU (réd.). – *Formal Methods and Software Engineering - 25th International Conference on Formal Engineering Methods, ICFEM 2024, Hiroshima, Japan, December 2-6, 2024, Proceedings, Lecture Notes in Computer Science*, 15394. – Springer, 2024.

## Theses

- [24] D. MÉRY. – *Une Méthode Axiomatique de Preuves de Propriétés de Fatalité de Programmes Paralleles avec Hypothèses d'Execution équitable*. – Thèse de doctorat, Institut National Polytechnique de Lorraine, 1983. – Thèse de Troisième Cycle.
- [25] D. MÉRY. – *Une Méthode de Raffinement et de Développement pour la Programmation Parallèle*. – Thèse de doctorat, Université de Nancy 1, UFR STMIA, DFD Informatique, Février 1993. – Doctorat ès Sciences Mathématiques.

## Papers in peer reviewed journals

- [26] D. MÉRY. – -Méthode axiomatique pour les propriétés de fatalité des programmes parallèles-. – *RAIRO Informatique Théorique et Application* 21, 3 (1987), pp. 287–322.
- [27] D. MÉRY. – -The  $\mathcal{NU}$  system as a development system for concurrent programs:  $\delta\mathcal{NU}$ -. – *Theoretical Computer Science* 94, 2 (march 1992), pp. 311 – 334.
- [28] A. MOKKEDEM, D. MÉRY. – -On using temporal logic for refinement and compositional verification of concurrent systems-. – *Theoretical Computer Science* 140 (avril 1995), pp. 95–138.
- [29] B. MERMET, D. MÉRY, D. SAMBORSKI. – -Spécification de services : une approche avec B-. – *Technique et science informatique* 17, 9 (1998), p. 20 pages.
- [30] D. CANSELL, D. MÉRY, S. MERZ. – -Diagrams Refinement for the Design of Reactive Systems-. – *Journal of Universal Computer Science* 7, 2 (2000), pp. 159–174.
- [31] J.-R. ABRIAL, D. CANSELL, D. MÉRY. – -A Mechanically Proved and Incremental Development of IEEE 1394 Tree Identify Protocol-. – *Formal Asp. Comput.* 14, 3 (2003), pp. 215–227.
- [32] D. CANSELL, D. MÉRY. – -Foundations of the B Method-. – *Computers and Artificial Intelligence* 22, 3-4 (2003), pp. 221–256.
- [33] D. MÉRY, D. CANSELL, C. PROCH, D. ABRAHAM, P. DITSCH. – -The challenge of QoS for digital television services-. – *EBU Technical Review* (avril 2005).
- [34] D. CANSELL, D. MÉRY. – -Formal and Incremental Construction of Distributed Algorithms: On the Distributed Reference Counting Algorithm-. – *Theoretical Computer Science* 364, 3 (2006), pp. 318–337.
- [35] D. CANSELL, J. P. GIBSON, D. MÉRY. – -Refinement: A Constructive Approach to Formal Software Design for a Secure e-voting Interface-. – *Electr. Notes Theor. Comput. Sci.* 183 (2007), pp. 39–55.
- [36] D. CANSELL, D. MÉRY. – -Incremental Parametric Development of Greedy Algorithms-. – *Electr. Notes Theor. Comput. Sci.* 185 (2007), pp. 47–62.
- [37] D. MÉRY, S. MERZ. – -Specification and Refinement of Access Control-. – *Journal of Universal Computer Science* 13, 8 (2007), pp. 1073–1093.
- [38] D. CANSELL, D. MÉRY, C. PROCH. – -System-on-chip design by proof-based refinement-. – *International Journal on Software Tools for Technology Transfer* 11, 3 (mars 2009), pp. 217–238. – The original publication is available at [www.springerlink.com](http://www.springerlink.com).
- [39] D. MÉRY. – -A Simple Refinement-based Method for Constructing Algorithms-. – *ACM SIGCSE Bulletin* 41, 2 (juin 2009), pp. 51–59.
- [40] D. MÉRY. – -Refinement-Based Guidelines for Algorithmic Systems-. – *International Journal of Software and Informatics* 3, 2-3 (septembre 2009), pp. 197–239.
- [41] D. MÉRY, N. K. SINGH. – -Functional Behavior of a Cardiac Pacing System-. – *International Journal of Discrete Event Control Systems (IJDECS)* (décembre 2010).
- [42] D. MÉRY, N. K. SINGH. – -A generic framework: from modeling to code-. – *Innovations in Systems and Software Engineering (ISSE)* (septembre 2011), pp. 1–9.

- [43] M. TOUNSI, M. MOSBAH, D. MÉRY. – -Proving Distributed Algorithms by Combining Refinement and Local Computations-. – *Electronic Communications of the EASST* 35 (novembre 2011), pp. ISSN 1863–2122.
- [44] D. MÉRY, N. K. SINGH. – -Formal Specification of Medical Systems by Proof-Based Refinement-. – *ACM Transactions in Embedded Computing Systems* 12, 1 (janvier 2013), p. 15.
- [45] M. B. ANDRIAMIARINA, D. MÉRY, N. K. SINGH. – -Revisiting Snapshot Algorithms by Refinement-based Techniques (Extended Version)-. – *Computer Science and Information Systems* (2014).
- [46] D. MÉRY, B. SCHÄTZ, A. WASSYNG. – -The Pacemaker Challenge: Developing Certifiable Medical Devices (Dagstuhl Seminar 14062)-. – *Dagstuhl Reports* 4, 2 (2014), pp. 17–37.
- [47] Y. A. AMEUR, D. MÉRY. – -Making explicit domain knowledge in formal system development-. – *Sci. Comput. Program.* 121 (2016), pp. 100–127.
- [48] M. TOUNSI, M. MOSBAH, D. MÉRY. – -From Event-B specifications to programs for distributed algorithms-. – *IJAACS* 9, 3/4 (2016), pp. 223–242.
- [49] F. FAKHFAKH, M. TOUNSI, M. MOSBAH, D. MÉRY, A. H. KACEM. – -Proving Distributed Coloring of Forests in Dynamic Networks-. – *Computación y Sistemas* 21, 4 (2017).
- [50] D. MÉRY. – -Playing with state-based models for designing better algorithms-. – *Future Generation Comp. Syst.* 68 (2017), pp. 445–455.
- [51] D. MÉRY, M. POPPLETON. – -Towards an integrated formal method for verification of liveness properties in distributed systems: with application to population protocols-. – *Software and System Modeling* 16, 4 (2017), pp. 1083–1115.
- [52] N. K. SINGH, Y. A. AMEUR, R. GENIET, D. MÉRY, P. A. PALANQUE. – -On the Benefits of Using MVC Pattern for Structuring Event-B Models of WIMP Interactive Applications-. – *Interact. Comput.* 33, 1 (2021), pp. 92–114.
- [53] L. BELLATRECHE, C. ORDONEZ, D. MÉRY, M. GOLFARELLI, E. H. ABDELWAHED. – -The central role of data repositories and data models in Data Science and Advanced Analytics-. – *Future Gener. Comput. Syst.* 129 (2022), pp. 13–17.
- [54] D. MÉRY, S. QIN. – -Selected papers from The 13th International Symposium on Theoretical Aspects of Software Engineering 29 July - 1 August 2019, Guilin, China-. – *Sci. Comput. Program.* 218 (2022), p. 102804.
- [55] D. MÉRY, A. RASCHKE. – -Selected papers from the Rigorous State-Based Methods 7th International Conference, ABZ 2020, Ulm, Germany, May 27-29, 2020-. – *Sci. Comput. Program.* 216 (2022), p. 102780.
- [56] N. K. SINGH, Y. AÏT-AMEUR, I. MENDIL, D. MÉRY, D. NAVARRE, P. PALANQUE, M. PANTEL. – -F3FLUID: A formal framework for developing safety-critical interactive systems in FLUID-. – *Journal of Software: Evolution and Process* (2022). – Early View = Online Version of Record before inclusion in an issue : e2439.
- [57] I. MENDIL, Y. AÏT-AMEUR, N. K. SINGH, G. DUPONT, D. MÉRY, P. A. PALANQUE. – -Formal domain-driven system development in Event-B: Application to interactive critical systems-. – *J. Syst. Archit.* 135 (2023), p. 102798.
- [58] A. RASCHKE, D. MÉRY. – -An automotive case study-. – *Int. J. Softw. Tools Technol. Transf.* 26, 3 (2024), pp. 327–330.

## General Papers for Popularization

- [59] *Formal methods for concurrency, parallelism and distribution*, 23. – octobre 1995. ERCIM News, numéro 23, 2 pages.
- [60] *Spécification de services et gestion des interactions*. – avril 1997. Lettre B, Numéro 2, pages 6-7.
- [61] *Un système d'analyse de la qualité: de la norme au produit en passant par le raffinement*, 73. – CNAM - Paris, France, 2005, 44–50p.
- [62] *Spécification d'exigences physico-physiologiques d'interaction homme-machine en ingénierie système, Mars 2013*, 104. – mars 2013, 29–39p. 10 pages.

## Book chapters

- [63] F. CARREZ, D. MÉRY. – -Specification and Derivation of Process Networks-. – *In: The Unified Computation Laboratory : Modelling, Specifications, and Tools*, R. Clark et C. Rattray (réd.). Oxford University Press, 1992, ch. 275–291.
- [64] D. MÉRY. – -Proving and Developing Concurrent Programs: a Small System-. – *In: The Unified Computation Laboratory Modelling, Specifications, and Tools*, R. Clark et C. Rattray (réd.). Oxford University Press, 1992, ch. 381–396.
- [65] J.-P. GIBSON, D. MÉRY. – -A Unifying Framework for Multi-Semantic Software Development-. – *In: Special Issues in Object-Oriented Programming*, M. Mühlhäuser (réd.). Dpunkt, 1997.
- [66] D. MÉRY. – -Logiques temporelles-. – *In: Ecole d'été - Temps réel 1997*, C. N. R. S. (réd.). CNRS, 1997, p. 17.
- [67] D. MÉRY. – -La méthode B : Fondements et Applications-. – *In: Ecole d'été - Temps réel 1999*. C. N. R. S., 1999, p. 17.
- [68] D. CANSELL, D. MÉRY. – -Abstraction and refinement of features-. – *In: Language Constructs for Designing Features*, G. Stephen et R. Mark (réd.). Springer, 2000. – Contribution à un ouvrage.
- [69] J.-P. GIBSON, D. MÉRY. – *Object-oriented technology and computing systems re-engineering, Computer Science and Electronic Engineering*. Horwood Publishing Ltd, 2000, ch. Fair Objects. – ISBN 1-898563-56-X.
- [70] D. CANSELL, D. MÉRY. – -Event B-. – *In: Software Specification Methods*, H. Habrias et M. Frappier (réd.). Hermes-Science Lavoisier, 2006.
- [71] D. CANSELL, D. MÉRY. – *Logics of Specification Languages, EATCS Textbook in Computer Science*. Springer, 2007, ch. The Event-B Modelling Method: Concepts and Case Studies, pp. 33–140.
- [72] D. MÉRY, N. K. SINGH. – -Event B-. – *In: Mise en oeuvre de la méthode B*, J.-L. Boulanger (réd.), *Informatique et Systèmes d'Informations*. HERMES, avril 2013.
- [73] D. MÉRY, N. K. SINGH. – -Event B (english version)-. – *In: Formal Methods Applied to Complex Systems*, J.-L. Boulanger (réd.), *Formal Methods Applied to Complex Systems*. Wiley, juillet 2014.

## Invited Conferences

- [74] D. MÉRY. – -De la transformation de prédicats à la transformation de programmes-. – *In : Actes des journées Formalisation des activités concurrentes*, CERT-IRIT-LAAS, pp. 1–15. – février 1996.
- [75] P. GIBSON, D. MÉRY. – -Formal modelling of services for getting a better understanding of the feature interaction problem - multi-view approach-. – *In : PSI'99, Andrei Ershov Third International Conference, PERSPECTIVES OF SYSTEM INFORMATICS, Lecture Notes in Computer Science*, Springer Verlag, p. 25. – Novosibirsk, Akademgorodok, Russia, 6 - 9 July 1999. Lecture Notes in Computer Science.
- [76] D. CANSELL, D. MÉRY. – -Playing with Abstraction and Refinement for Managing Features Interactions-. – *In : ZB 2000: Formal Specification and Development in Z and B, First International Conference of B and Z Users, York, UK, August 29 - September 2, 2000, Proceedings*, pp. 148–167. – 2000.
- [77] D. MÉRY, N. K. SINGH. – -Trustable Formal Specification for Software Certification-. – *In : 4th International Symposium On Leveraging Applications of Formal Methods - ISOLA 2010*, T. Margaria, B. Ste (réd.), *Lecture Notes in Computer Science*, 6416, Springer, pp. 312–326. – Heraklion, Crete, Greece, octobre 2010.
- [78] D. MÉRY, N. K. SINGH. – -Formalisation of the Heart based on Conduction of Electrical Impulses and Cellular-Automata-. – *In : International Symposium on Foundations of Health Information Engineering and Systems (FHIES, 2011)*, Z. Liu, A. Wasssyng (réd.), UMIST Macau. – Johannesburg, South Africa, août 2011. conference 2011.
- [79] D. MÉRY. – -Playing with State-Based Models for Designing Better Algorithms-. – *In : Model and Data Engineering - 4th International Conference, MEDI 2014, Larnaca, Cyprus, September 24-26, 2014. Proceedings*, pp. 1–3. – 2014.
- [80] D. M'ÉRY. – -Correct-by-Construction Modelling Methodology for Trustworthy Medical Devices-. – 16th-18th October 2018.
- [81] D. MÉRY. – -Correctness-by-Construction for Safe and Secure Systems-. – MNIT, Jaipur, INDIA. – 10th-12th January 2019.
- [82] D. MÉRY. – -Verification by Construction of Distributed Algorithms-. – *In : Theoretical Aspects of Computing - ICTAC 2019 - 16th International Colloquium*, R. M. Hierons, M. Mosbah (réd.), *Theoretical Aspects of Computing - ICTAC 2019 - 16th International Colloquium, Hammamet, Tunisia, October 31 - November 4, 2019, Proceedings*, 11884, Springer, pp. 22–38. – Hammamet, Tunisia, octobre 2019.

## Communications in international conferences or symposia with peer-reviewed proceedings published by Springer, IEEE, ACM, Elsevier, Leibnitz Institute

- [83] D. MÉRY. – -A proof system to derive eventuality properties under justice hypothesis-. – *In : Mathematical Foundations of Computer Science*, J. Gruska (réd.), *Lecture Notes in Computer Science*, 233, Springer Verlag. – Bratislava, august 1986.
- [84] D. MÉRY, A. PUCCETTI. – -An operational approach for proving Real Time ADA programs-. – *In : Chilean Computer Science Society*. – 1986. Santiago, Chili.

- [85] R. FIACK, D. MÉRY. – -On the relation between Statecharts and SCCS; Some ideas to explain the behaviour-. – *In : IX International Conference of the Chilean Computer Science Society and XV Latin American Conference on Informatics.* – july 1989.
- [86] F. CARREZ, D. MÉRY. – -Temporal Specifications Directed by Grammar and Design of Process Networks-. – *In : Specification and Verification of Concurrent Systems*, C. Rattray (réd.), *Workshops in Computing*, British Computer Society, Springer Verlag, pp. 410—427. – 1990.
- [87] D. MÉRY, A. MOKKEDEM. – -Demonstration of Crocos-. – *In : Fifth SDL Forum Evolving methods*, O. Faergemand, R. Reed (réd.), North-Holland. – 1991.
- [88] D. MÉRY, A. MOKKEDEM. – -A proof environment for a subset of SDL-. – *In : Fifth SDL Forum Evolving methods*, O. Faergemand, R. Reed (réd.), North-Holland. – 1991.
- [89] D. MÉRY, A. MOKKEDEM. – -CROCOS: An Integrated Environment For Interactive Verification OF SDL Specifications-. – *In : Computer-Aided Verification Proceedings*, G. Bochmann (réd.), *Lecture Notes in Computer Science*, Springer Verlag. – 1992.
- [90] N. BROWN, D. MÉRY. – -A Proof Environment for Concurrent Programs -. – *In : FME93: Industrial-Strength Formal Methods*, J. C. P. Woodcock, P. G. Larsen (réd.), Springer Verlag. – 1993. *Lecture Notes in Computer Science* 670.
- [91] N. BROWN, D. MÉRY. – -Towards an Integrated Environment for Concurrent Programs Development -. – *In : Algebraic Methodology and Software Technology (AMAST'93)*, T. R. M. Nivat, C. Rattray, G. Scollo (réd.), Springer Verlag. *Workshops in Computing*, to appear. – 1993. *System Demonstrations*.
- [92] A. MOKKEDEM, D. MÉRY. – -On using a Composition Principle to Design Parallel Programs-. – *In : Algebraic Methodology and Software Technology*, M. Nivat, C. Rattray, T. Rus, G. Scollo (réd.), Twente, Springer Verlag. – June 1993.
- [93] A. MOKKEDEM, D. MÉRY. – -A stuttering closed temporal logic for modular reasoning about concurrent programs-. – *In : First International Conference on Temporal Logic*, Gabbay (réd.). – 1994. *Lectures Notes in Artificial Intelligence*.
- [94] D. MÉRY. – -Machines Abstraites Temporelles- Analyse Comparative de B et TLA+ (Version Préliminaire)-. – *In : First B Conference*, H. Habrias (réd.). – 1996.
- [95] J.-F. PÉTIN, D. MÉRY, H. PANNETTO, B. IUNG. – -Validation of software components for intelligent actuation and measurement-. – *In : Sixth International Symposium On Robotics And Manufacturing*, IFAC, IFAC. – 1996.
- [96] J.-P. GIBSON, B. MERMET, D. MÉRY. – -Feature Interactions: A Mixed Semantic Model Approach-. – *In : 1st Irish Workshop on Formal Methods*, G. O'Regan, S. Flynn (réd.), Irish Formal Methods Special Interest Group (IFMSIG), Springer Verlag. – Dublin, Ireland, juillet 1997. <http://ewic.springer.co.uk/>.
- [97] J.-P. GIBSON, D. MÉRY. – -Telephone Feature Verification: Translating SDL to TLA+-. – *In : Eighth SDL Forum Evolving methods*, North-Holland. – 1997. Evry, France, 22-26 September 1997.
- [98] B. MERMET, D. MÉRY. – -Incremental Specification of Telecommunication Services-. – *In : First IEEE International Conference on Formal Engineering Methods (ICFEM)*, M. Hinchey (réd.), IEEE. – Hiroshima, novembre 1997.

- [99] B. MERMET, D. MÉRY. – -Safe combinations of services using B-. – *In: SAFECOMP97 The 16th International Conference on Computer Safety, Reliability and Security*, J. McDermid (réd.), Springer Verlag. – York, septembre 1997.
- [100] R. COUTURIER, D. MÉRY. – -An experiment in parallelizing an application using formal methods-. – *In: Computer-Aided Verification CAV'98*, A. Hu, M. Vardi (réd.), *Lecture Notes in Computer Science*, Springer Verlag. – Vancouver, British Columbia, CANADA, juin 1998. June 28 - July 2, 1998.
- [101] J.-P. GIBSON, D. MÉRY. – -Fair Objects-. – *In: 1st UK Colloquium on Object Technology & System Re-engineering (COTSR) in conjunction with Object Technology 98 (OT98)*, H. Zedan (réd.). – 6-8 April 1998.
- [102] J.-P. GIBSON, D. MÉRY. – -Teaching Formal Methods: Lessons to learn-. – *In: Irish Workshop For Formal Methods 1998, Cork, Irlande.* – juillet 1998.
- [103] B. MERMET, D. MÉRY. – -Service specifications to B, or not to B-. – *In: Second Workshop on Formal Methods in Software Practice*, M. Ardis (réd.), ACM Press. – Clearwater Beach, Florida, March 4-5 1998.
- [104] D. MÉRY, J.-F. PÉTIN. – -Formal engineering methods for modelling and validation of control systems-. – *In: 9th Symposium On Information Control Problems in Manufacturing INCOM 98*, G. Morel, F. Vernadat (réd.), IFAC, Elsevier Science Ltd. – Nancy, juin 1998.
- [105] J.-F. PÉTIN, G. MOREL, D. MÉRY, P. LAMBOLEY. – -Process control engineering: contribution to a formal structuring framework with the B method-. – *In: B'98 The 2nd International B Conference*, D. Bert (réd.), Springer Verlag. – Montpellier, France, April 22-24 1998.
- [106] D. CANSELL, D. MÉRY. – -Abstract animator for temporal specifications Application to TLA-. – *In: SAS'99 Static Analysis Symposium, Venice, Italie*, G. File', A. Cortesi (réd.), LNCS, Springer Verlag. – Heidelberg, septembre 1999.
- [107] J.-P. GIBSON, G. HAMILTON, D. MÉRY. – -Integration Problems in Telephone Feature Requirements-. – *In: IFM'99 Integrated Formal Methods 1999*, A. Galloway, K. Taguchi (réd.), *Workshop In Computing Science*, Springer Verlag. – YORK, June 1999.
- [108] P. LAMBOLEY, J.-F. PÉTIN, D. MÉRY. – -Towards a formal engineering framework for process automation-. – *In: Seventh IEEE International Conference on Emerging Technologies and Factory Automation*, IEEE, pp. 1167 – 1175. – October 18-21 1999.
- [109] D. MÉRY. – -Requirements for a temporal B : Assigning Temporal Meaning to Abstract Machines ... and to Abstract Systems-. – *In: IFM'99 Integrated Formal Methods 1999*, A. Galloway, K. Taguchi (réd.), *Workshop In Computing Science.* – YORK, June 1999.
- [110] J.-P. GIBSON, G. HAMILTON, D. MÉRY. – -Composing Fair Objects-. – *In: SNPD'00*, H. Fouchal (réd.), IEEE. – REIMS, May 2000.
- [111] J.-P. GIBSON, G. HAMILTON, D. MÉRY. – -A Taxonomy for triggered interactions using fair objects semantics-. – *In: FIW'00 Sixth International Workshop on Feature Interactions in Telecommunications and Software Systems*, M. Calder, E. Magill (réd.). – Glasgow, Scotland, United Kingdom, 17th - 19th May 2000.
- [112] D. CANSELL, G. GOPALAKRISHNAN, M. JONES, D. MÉRY, A. WEINZOEPFLEN. – -Incremental Proof of the Producer/Consumer Property for the PCI Protocol-. – *In: Formal Specification and Development in Z and B- 2nd International Conference of B and Z Users -*

- ZB 2002, Grenoble, France, D. Bert, J. Bowen, M. Henson, K. Robinson (éd.), *Lecture Notes in Computer Science*, 2272, Springer, pp. 22–41. – janvier 2002.
- [113] H. PANETTO, J.-F. PETIN, D. MÉRY. – -Formalisation of enterprise modelling standards using UML and the B method-. – In : *8th International Conference on Concurrent Enterprising - ICE 2002, Rome, Italie*, pp. 93–101. – juin 2002. ISBN : 0 85358 113 4.
  - [114] G. MOREL, D. MÉRY, J.-B. LÉGER, T. LECOMTE. – -Proof-Oriented Fault-Tolerant Systems Engineering : Rationales, Experiments and Open Issues-. – In : *7th IFAC Symposium on Cost Oriented Automation - COA'2004, Gatineau, Québec, Canada*. – June 2004.
  - [115] J.-R. ABRIAL, D. CANSELL, D. MÉRY. – -Refinement and Reachability in Event\_B-. – In : *ZB 2005: Formal Specification and Development in Z and B*, H. Treharne, S. King, M. Henson (éd.), *Lecture Notes in Computer Science*, 3455, Springer Verlag, pp. 222–241. – Guilford, UK, avril 2005.
  - [116] D. CANSELL, D. MÉRY, C. PROCH. – -Proved Design of Hardware Architecture-. – In : *Formal Specification and Development in Z and B (ZB 2005). Poster session*. – Guildford, U.K., avril 2005.
  - [117] D. CANSELL, D. MÉRY. – -Incremental Parametric Development of Greedy Algorithms-. – In : *Automatic Verification of Critical Systems - AVoCS 2006*, S. Merz, T. Nipkow (éd.), pp. 48–62. – Nancy, France, 2006.
  - [118] N. BENAÏSSA, D. CANSELL, D. MERY. – -Integration of Security Policy into System Modeling-. – In : *The 7th International B Conference - B2007*, O. K. Jacques Julliard (éd.), *Lecture Notes in Computer Science*, 4355, Springer, pp. 232–247. – Besançon, France, 2007.
  - [119] D. CANSELL, P. GIBSON, D. MÉRY. – -Formal verification of tamper-evident storage for e-voting-. – In : *5th IEEE International Conference on Software Engineering and Formal Methods - SEFM 2007*, Mike Hinchey, Tiziana Margaria (éd.), IEEE, pp. 329–338. – London, United Kingdom, 2007.
  - [120] D. CANSELL, D. MÉRY. – -Proved-Patterns-Based Development for Structured Programs-. – In : *Computer Science - Theory and Applications, Second International, Symposium on Computer Science in Russia - CSR 2007*, Volker Diekert, Mikhail V. Volkov, Andrei Voronkov (éd.), *Lecture Notes in Computer Science*, 4649, Springer, pp. 104–114. – Ekaterinburg, Russia, 2007.
  - [121] D. CANSELL, D. MÉRY, J. REHM. – -Time Constraint Patterns for Event B Development-. – In : *The 7th International B Conference - B 2007*, O. K. Jacques Julliard (éd.), *Lecture Notes in Computer Science*, 4355, Springer, pp. 140–154. – Besançon, France, 2007.
  - [122] D. MÉRY. – -A simple refinement-based method for constructing algorithms-. – In : *First International Workshop on Formal Methods Education and Training*, J. Davies, J. Gibbons, M. Hinchey, K. Taguchi (éd.), *Report GRACE-TR-2008-03*, GRACE Center-National Institute of Informatics. – 2008.
  - [123] N. BENAÏSSA, D. MÉRY. – -Cryptologic protocols analysis using proof-based patterns-. – In : *Seventh International Andrei Ershov Memorial Conference PERSPECTIVES OF SYSTEM INFORMATICS*, A. Marchuk (éd.), Novosibirsk, Akademgorodok, Russia, A.P. Ershov Institute of Informatics Systems & Novosibirsk State University. – 15-19 June 2009.
  - [124] M. TOUNSI, A. HADJ KACEM, M. MOSBAH, D. MÉRY. – -A Refinement Approach for Proving Distributed Algorithms : Examples of Spanning Tree Problems-. – In : *Integration of Model-based Formal Methods and Tools - IM\_FMT'2009 - in IFM'2009*. – Düsseldorf, Germany, février 2009.



- [125] N. BENAÏSSA, D. MÉRY. – -Cryptographic Protocols Analysis in Event B-. – *In : Ershov Memorial Conference: Perspectives of Systems Informatics, 7th International Andrei Ershov Memorial Conference, PSI 2009, Novosibirsk, Russia, June 15-19, 2009. Revised Papers*, A. Pnueli, I. Virbitskaite, A. Voronkov (réd.), *Lecture Notes in Computer Science*, 5947, Springer, pp. 282–293. – 2010.
- [126] N. BENAÏSSA, D. MÉRY. – -Proof-Based Design of Security Protocols-. – *In : 5th International Computer Science Symposium in Russia, CSR 2010*, E. W. Mayr (réd.), *Lecture Notes in Computer Science*, 6072, Springer, pp. 25–36. – KAZAN, Russian Federation, juin 2010.
- [127] D. MÉRY, M. MOSBAH, M. TOUNSI. – -Proving Distributed Algorithms by Combining Refinement and Local Computations-. – *In : AVOCS 2010 10th International Workshop on Automated Verification of Critical Systems*, M. R. Jens Bendisposto, Michael Leuschel (réd.). – Dusseldorf, Germany, septembre 2010.
- [128] D. MÉRY, N. K. SINGH. – -Real-Time Animation for Formal Specification-. – *In : Complex Systems Design & Management 2010*, M. Aiguier, F. Bretaudeau, D. Krob (réd.), Springer, pp. 49–60. – Paris, France, octobre 2010.
- [129] D. MÉRY, M. MOSBAH, M. TOUNSI. – -Refinement-based Verification of Local Synchronization Algorithms-. – *In : Formal Methods FM2011, Lecture Notes in Computer Science*, Springer, p. à paraître. – Limerick, Ireland, juin 2011.
- [130] D. MÉRY, N. K. SINGH. – -Analysis of DSR Protocol in Event-B-. – *In : 13th International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS 2011)*, X. Défago, F. Petit, V. Villain (réd.), 6976, Springer Berlin / Heidelberg, pp. 401–415. – Grenoble, France, octobre 2011.
- [131] D. MÉRY, N. K. SINGH. – -Automatic Code Generation from Event-B Models-. – *In : SoICT 2011*, ACM ICPS. – Hanoi, Viet Nam, octobre 2011.
- [132] D. MÉRY, N. K. SINGH. – -Formal Development and Automatic Code Generation : Cardiac Pacemaker-. – *In : International Conference on Computers and Advanced Technology in Education (ICCATE, 2011)*. – Beijing, China, décembre 2011.
- [133] D. MÉRY, N. K. SINGH. – -Medical Protocol Diagnosis using Formal Methods-. – *In : International Symposium on Foundations of Health Information Engineering and Systems (FHIES, 2011)*, Z. Liu, A. Wassyng (réd.), UMIST Macau. – Johannesburg, South Africa, août 2011. conference 2011.
- [134] M. B. ANDRIAMIARINA, D. MÉRY, N. K. SINGH. – -Revisiting Snapshot Algorithms by Refinement-based Techniques-. – *In : PDCAT 2012 : The Thirteenth International Conference on Parallel and Distributed Computing, Applications and Technologies*. – Beijing, China, 2012.
- [135] D. MÉRY, N. K. SINGH. – -Critical systems development methodology using formal techniques-. – *In : 3rd International Symposium on Information and Communication Technology - SoICT 2012*, ACM, pp. 3–12. – Ha Long, Viet Nam, août 2012.
- [136] D. MÉRY, N. K. SINGH. – -Formalization of Heart Models Based on the Conduction of Electrical Impulses and Cellular Automata-. – *In : Foundations of Health Informatics Engineering and Systems*, Z. Liu, A. Wassyng (réd.), *Lecture Notes in Computer Science*, 7151, Springer Berlin Heidelberg, pp. 140–159. – 2012. PostProcdding Version of [78].

- [137] D. MÉRY, N. K. SINGH. – -Medical Protocol Diagnosis Using Formal Methods-. – In : *Foundations of Health Informatics Engineering and Systems*, Z. Liu, A. Wassung (réd.), *Lecture Notes in Computer Science*, 7151, Springer Berlin Heidelberg, pp. 1–20. – 2012. PostProceeding Version of [133].
- [138] M. B. ANDRIAMIARINA, D. MÉRY, N. K. SINGH. – -Integrating Proved State-Based Models for Constructing Correct Distributed Algorithms-. – In : *iFM - 10th International Conference on integrated Formal Methods - 2013*. – Turku, Finlande, juin 2013.
- [139] D. MÉRY, R. MONAHAN. – -Transforming EVENT B Models into Verified C# Implementations-. – In : *VPT 2013 - First International Workshop on Verification and Program Transformation*, A. Lisitsa, A. Nemytykh (réd.), *EPIC*, 16, Alexei Lisitsa and Andrei Nemytykh, pp. 57–73. – Saint Petersburg, Russie, Fédération De, juillet 2013.
- [140] D. MÉRY, M. MOSBAH, M. TOUNSI. – -From Event-B Specifications to Programs for Distributed Algorithms-. – In : *IEEE Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises*, IEEE, pp. 104–109. – France, juin 2013.
- [141] D. MÉRY, M. POPPLETON. – -Formal Modelling and Verification of Population Protocols-. – In : *iFM - 10th International Conference on integrated Formal Methods - 2013*, E. B. Johnsen, L. Petre (réd.), *LNCS*, Springer. – Turku, Finlande, juin 2013.
- [142] D. MÉRY, N. K. SINGH. – -Ideal Mode Selection of a Cardiac Pacing System-. – In : *4th International Conference - Digital Human Modeling and applications in Health, Safety, Ergonomics and Risk Management - DHM 2013 (HCI International 2013)*, V. G. Duffy (réd.), *Lecture Notes in Computer Science*, 8025, Springer, pp. 258–267. – Las Vegas, États-Unis, juillet 2013.
- [143] M. TOUNSI, M. MOSBAH, D. MÉRY. – -From Event-B Specifications to Programs for Distributed Algorithms-. – In : *WETICE 2013: 22th IEEE International Conference on Enabling Technologies: Infrastructures for Collaborative Enterprises.*, S. Reddy, M. Jmaiel (réd.), IEEE. – Hammamet, Tunisie, juin 2013.
- [144] Y. A. AMEUR, J. P. GIBSON, D. MÉRY. – -On Implicit and Explicit Semantics: Integration Issues in Proof-Based Development of Systems - Version to Read-. – In : *Leveraging Applications of Formal Methods, Verification and Validation. Specialized Techniques and Applications - 6th International Symposium, ISoLA 2014, Imperial, Corfu, Greece, October 8-11, 2014, Proceedings, Part II*, pp. 604–618. – 2014.
- [145] M. B. ANDRIAMIARINA, D. MÉRY, N. K. SINGH. – -Analysis of Self- $\star$  and P2P Systems Using Refinement-. – In : *Abstract State Machines, Alloy, B, TLA, VDM, and Z - 4th International Conference, ABZ 2014, Toulouse, France, June 2-6, 2014. Proceedings*, pp. 117–123. – 2014.
- [146] D. MÉRY, N. K. SINGH. – -Formal Evaluatuion of Landing Gear System-. – In : *SoICT 2014, ACM ICPS*. – Hanoi, Viet Nam, décembre 2014.
- [147] D. MÉRY, N. K. SINGH. – -The Semantics of Refinement Chart-. – In : *Digital Human Modeling. Applications in Health, Safety, Ergonomics and Risk Management - 5th International Conference, DHM 2014, Held as Part of HCI International 2014, Heraklion, Crete, Greece, June 22-27, 2014. Proceedings*, pp. 415–426. – 2014.
- [148] D. MÉRY, R. SAWANT, A. TARASYUK. – -Integrating Domain-Based Features into Event-B: A Nose Gear Velocity Case Study-. – In : *Model and Data Engineering - 5th International Conference, MEDI 2015, Rhodes, Greece, September 26-28, 2015, Proceedings*, pp. 89–102. – 2015.

- [149] D. MÉRY, N. K. SINGH. – -Analyzing Requirements Using Environment Modelling-. – *In : Digital Human Modeling - Applications in Health, Safety, Ergonomics and Risk Management: Ergonomics and Health - 6th International Conference, DHM 2015, Held as Part of HCI International 2015, Los Angeles, CA, USA, August 2-7, 2015, Proceedings, Part II*, pp. 345–357. – 2015.
- [150] Z. CHENG, D. MÉRY, R. MONAHAN. – -On Two Friends for Getting Correct Programs - Automatically Translating Event B Specifications to Recursive Algorithms in Rodin-. – *In : Leveraging Applications of Formal Methods, Verification and Validation: Foundational Techniques - 7th International Symposium, ISOFA 2016, Imperial, Corfu, Greece, October 10-14, 2016, Proceedings, Part I*, pp. 821–838. – 2016.
- [151] F. FAKHFAKH, M. TOUNSI, M. MOSBAH, D. MÉRY, A. H. KACEM. – -A correct-by-construction approach for proving distributed algorithms in spanning trees-. – *In : 16th IEEE/ACIS International Conference on Computer and Information Science, ICIS 2017, Wuhan, China, May 24-26, 2017*, pp. 1–6. – 2017.
- [152] J. P. GIBSON, S. KHERROUBI, D. MÉRY. – -Applying a Dependency Mechanism for Voting Protocol Models Using Event-B-. – *In : 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*, pp. 124–138. – 2017.
- [153] J. P. GIBSON, D. MÉRY. – -Explicit Modelling of Physical Measures: From Event-B to Java-. – *In : Laleau et al. [17]*, pp. 64–79.
- [154] S. KHERROUBI, D. MÉRY. – -Contextualization and Dependency in State-Based Modelling - Application to Event-B-. – *In : Model and Data Engineering - 7th International Conference, MEDI 2017, Barcelona, Spain, October 4-6, 2017, Proceedings*, pp. 137–152. – 2017.
- [155] Y. A. AMEUR, I. AÏT-SADOUNE, P. CASTERAN, J. P. GIBSON, K. HACID, S. KHERROUBI, D. MÉRY, L. MOHAND-OUSSAÏD, N. K. SINGH, L. VOISIN. – -On the Importance of Explicit Domain Modelling in Refinement-Based Modelling Design. Experiments with Event-B-. – *In : Abstract State Machines, Alloy, B, TLA, VDM, and Z - 6th International Conference, ABZ 2018, Southampton, UK, June 5-8, 2018, Proceedings*, pp. 425–430. – 2018.
- [156] D. MÉRY. – -Modelling by Patterns for Correct-by-Construction Process-. – *In : Leveraging Applications of Formal Methods, Verification and Validation. Modeling - 8th International Symposium, ISOFA 2018, Limassol, Cyprus, November 5-9, 2018, Proceedings, Part I*, pp. 399–423. – 2018.
- [157] N. K. SINGH, Y. AÏT-AMEUR, D. MÉRY, D. NAVARRE, P. PALANQUE, M. PANTEL. – - Formal Development of Multi-Purpose Interactive Application (MPIA) for ARINC 661-. – *In : 7th International Workshop on Formal Techniques for Safety-Critical Systems (FTSCS 2019)*, 1165, pp. 21–39. – Shenzhen, China, novembre 2019.
- [158] H. CIRSTEA, A. GRALL, D. MÉRY. – -Generating Distributed Programs from Event-B Models-. – *In : International Workshop on Verification and Program Transformation*, 320, pp. 110–124. – Dublin, Ireland, avril 2020.
- [159] I. MENDIL, N. K. SINGH, Y. AÏT-AMEUR, D. MÉRY, P. PALANQUE. – -An Integrated Framework for the Formal Analysis of Critical Interactive Systems-. – *In : The 27th Asia-Pacific Software Engineering Conference*, Y. Liu, S.-P. Ma, S. Chen, J. Sun (éd.), *The 27th Asia-Pacific Software Engineering Conference*, Jun Sun, IEEE, p. 10. – Singapour, Singapour, décembre 2020.

- [160] Y. A. AMEUR, R. LALEAU, D. MÉRY, N. K. SINGH. – -Towards Leveraging Domain Knowledge in State-Based Formal Methods-. – *In : Logic, Computation and Rigorous Methods - Essays Dedicated to Egon Börger on the Occasion of His 75th Birthday*, A. Raschke, E. Riccobene, K. Schewe (réd.), *Lecture Notes in Computer Science*, 12750, Springer, pp. 1–13. – 2021.
- [161] Z. CHENG, D. MÉRY. – -A Refinement Strategy for Hybrid System Design with Safety Constraints-. – *In : Model and Data Engineering - 10th International Conference, MEDI 2021, Tallinn, Estonia, June 21-23, 2021, Proceedings*, J. C. Attiogbé, S. B. Yahia (réd.), *Lecture Notes in Computer Science*, 12732, Springer, pp. 3–17. – 2021.
- [162] I. MENDIL, Y. A. AMEUR, N. K. SINGH, D. MÉRY, P. A. PALANQUE. – -Standard Conformance-by-Construction with Event-B-. – *In : Formal Methods for Industrial Critical Systems - 26th International Conference, FMICS 2021, Paris, France, August 24-26, 2021, Proceedings*, A. Lluch-Lafuente, A. Mavridou (réd.), *Lecture Notes in Computer Science*, 12863, Springer, pp. 126–146. – 2021.
- [163] Y. A. AMEUR, G. DUPONT, I. MENDIL, D. MÉRY, M. PANTEL, P. RIVIERE, N. K. SINGH. – -Empowering the Event-B Method Using External Theories-. – *In : Integrated Formal Methods - 17th International Conference, IFM 2022, Lugano, Switzerland, June 7-10, 2022, Proceedings*, M. H. ter Beek, R. Monahan (réd.), *Lecture Notes in Computer Science*, 13274, Springer, pp. 18–35. – 2022.
- [164] I. MENDIL, P. RIVIERE, Y. A. AMEUR, N. K. SINGH, D. MÉRY, P. A. PALANQUE. – -Non-Intrusive Annotation-Based Domain-Specific Analysis to Certify Event-B Models Behaviours-. – *In : 29th Asia-Pacific Software Engineering Conference, APSEC 2022, Virtual Event, Japan, December 6-9, 2022, IEEE*, pp. 129–138. – 2022.
- [165] D. MÉRY. – -Checking Contracts in Event-B - Reporting the Introduction and the Use of Automated Tools for Verifying Software-Based Systems in Higher Education-. – *In : Formal Methods Teaching - 6th Formal Methods Teaching Workshop, FMTea 2024, Milan, Italy, September 10, 2024, Proceedings*, E. Sekerinski, L. Ribeiro (réd.), *Lecture Notes in Computer Science*, 14939, Springer, pp. 91–105. – 2024.
- [166] H. WU, T. FLINKOW, D. MÉRY. – -Cyclone: A New Tool for Verifying/Testing Graph-Based Structures - Tool Paper-. – *In : Tests and Proofs - 18th International Conference, TAP 2024, Milan, Italy, September 9-10, 2024, Proceedings*, M. Huisman, F. Howar (réd.), *Lecture Notes in Computer Science*, 15153, Springer, pp. 107–124. – 2024.

## **Communications in international workshops or national conferences with peer-reviewed proceedings**

- [167] R. FIACK, D. MÉRY. – -From informal statements to formal statements: A Heating System specified in the Statechart formalism-. – *In : First Mahgrebian Conference on Software Engineering and Artificial Intelligence*, M. Bettaz (réd.), Université de Constantine. – septembre 1989.
- [168] N. BROWN, D. MÉRY. – -Deriving Occam Programs through the Refinement of Unity-like Specifications-. – *In : Proceedings European Workshop on Parallel Computing*. – Barcelona (Spain), 1992.
- [169] D. MÉRY, A. MOKKEDEM. – -CROCOS : Un environnement de preuve interactive de specifications SDL-. – *In : Journées GROPLAN et GRD Programmation et Outils de l'Intelligence Artificielle*, GRECO Programmation et Outils de l'IA. – 1992.

- [170] N. BROWN, D. MÉRY. – -Formal Development of C-Linda Programs-. – *In : ERCIM Workshop on Development and Transformation of Programs*, J. Souquieres (réd.), INRIA. – 1993. Nancy, FRANCE.
- [171] D. MÉRY, D. ROEGEL. – -Refining Formal Specifications to Get Efficient Structured and Correct Concurrent Programs-. – *In : Proceedings Workshop High Performance Computing*, J. A. Z. et al (réd.), IEEE/USP-LSI, IEEE, pp. 69–82. – 1994.
- [172] J.-P. GIBSON, D. MÉRY. – -A Unifying Model for Specification and Design-. – *In : Proceedings Workshop on Proof Theory of Concurrent Object-Oriented Programming*, D. G. J.P. Bashoun, J. Fiadeiro, A. Yonezawa (réd.). – Linz (Austria), juillet 1996.
- [173] R. COUTURIER, D. MÉRY. – -Coordination of abstract machines-. – *In : CSIT'97*. – Yerevan, Armenia, September 1997.
- [174] B. MERMET, D. MÉRY. – -Détection d'interactions de services : une approche avec B-. – *In : AFADL : Approches formelles dans l'assistance au développement de logiciels*. – mai 1997.
- [175] D. CANSELL, D. MÉRY. – -Interprétation de spécifications temporelles à l'aide d'un outil de preuve-. – *In : AFADL'98*, N. Lévy, Y. Ledru (réd.). – septembre-octobre 1998.
- [176] R. COUTURIER, D. MÉRY. – -Parallelization of a Monte Carlo simulation of a spins system-. – *In : Parallel and Distributed Processing Techniques and Applications - PDPTA'98, Las Vegas, USA*, H. R. Arabnia (réd.). – juillet 1998.
- [177] J.-P. GIBSON, D. MÉRY. – -Always and Eventually in Object Requirements-. – *In : Rigorous Object Oriented Methods ROOM2 (Bradford)*. – 1998.
- [178] R. COUTURIER, B. COUTURIER, D. MÉRY. – -A compiler for parallel Unity programs using OpenMp-. – *In : PDPTA'99 Parallel and Distributed Processing Techniques and Applications*. – juillet 1999.
- [179] J.-P. GIBSON, D. MÉRY, Y. MOKHTARI. – -Animating formal specifications: a telephone simulation case study-. – *In : 13th European Simulation Multiconference, Modeling & Simulation: a Tool for the next Millennium*, The Society for Computer Simulation International SCS, p. 7. – June 1-4 1999.
- [180] D. MÉRY, Y. MOKHTARI. – -Validation of formal specifications-. – *In : AAAI'99, Fall Symposium*. – novembre 1999.
- [181] J.-R. ABRIAL, D. CANSELL, D. MÉRY. – -Specification and Design of the Leader Election Protocol of IEEE 1394 -. – *In : IEEE 1394 (FireWire) Workshop : International Workshop on Application of Formal Methods to IEEE 1394 Standard, Berlin, Germany*, S. Maharaj, J. Romijn, C. Shankland (réd.), University of Stirling. – mars 2001.
- [182] D. CANSELL, J. JARAY, D. MERY. – -Utilisation de B pour l'aide à la spécification d'un système de diagnostic-. – *In : Approche Formelles dans l'Assistance au Développement de Logiciels - AFADL'2001, Nancy, France*. – juin 2001.
- [183] D. CANSELL, D. MÉRY, S. MERZ. – -Formal Analysis of a Self Stabilizing Algorithm Using Predicate Diagrams -. – *In : Integrating Diagrammatic and Formal Specification Techniques, Workshop at Informatik 2001 - 31. Jahrestagung der GI, ÖCG Jahrestagung 2001, Wien*. – 2001.
- [184] D. CANSELL, D. MÉRY, A. WEINZOEPFLEN. – -Modélisation et analyse de la documentation technique d'un système-. – *In : Modélisation des Systèmes Réactifs - MSR 2001, Toulouse, France*, Hermes. – octobre 2001.

- [185] D. CANSELL, D. MÉRY. – -Integration of the proof process in the system development through refinement steps-. – *In : 5th Forum on Specification & Design Language (Workshop SFP in FDL), Marseille, France, E. Villar (réd.). – septembre 2002.*
- [186] D. CANSELL, J.-F. CULAT, D. MÉRY, C. PROCH. – -Derivation of SystemC code from abstract system models-. – *In : Forum on specification & Design Languages - FDL'04, Lille, France. – 2004.*
- [187] D. MÉRY. – -Synthèse formelle par raffinement de modèles et de logiciels pour l'automatisation-. – *In : Journées d'Etude "Automatique et Informatique", Cachan, France, Club des Enseignants et des Chercheurs en Electronique, Electrotechnique et Automatique, Section Automatique. – Mars 2004.*
- [188] D. ABRAHAM, D. CANSELL, P. DITSCH, D. MÉRY, C. PROCH. – -Synthesis of the QoS for digital TV services-. – *In : First International Workshop on Incentive Based Computing - IBC'05. – Amsterdam, The Netherlands, 2005.*
- [189] D. CANSELL, D. MÉRY. – -Formal and Incremental Construction of a Distributed Reference Counting Algorithm-. – *In : APPSEM 2005, M. Hoffmann, H.-W. Loidl (réd.). – septembre 2005.*
- [190] D. CANSELL, D. MÉRY, C. PROCH. – -Modelling SystemC scheduler by refinement-. – *In : IEEE ISoLA Workshop on Leveraging Applications of Formal Methods, Verification, and Validation - ISOLA'05. – Columbia, U.S.A., 2005.*
- [191] L. FEJOZ, D. MÉRY, S. MERZ. – -DIXIT: a Graphical Toolkit for Predicate Abstractions-. – *In : Fourth International Workshop on Automated Verification of Infinite-State Systems (AVIS 2005), R. Bhargadwaj, S. Mukhopadhyay (réd.), pp. 39–48. – Edinburgh, U.K., 2005.*
- [192] D. CANSELL, J. P. GIBSON, D. MÉRY. – -Refinement: a constructive approach to formal software design for a secure e-voting interface-. – *In : Formal Methods for Interactive Systems (FMIS 2006). – Macao, 2006.*
- [193] D. MÉRY, S. MERZ. – -Event Systems and Access Control-. – *In : Sixth International IFIP WG 1.7 Workshop on Issues in the Theory of Security, D. Gollmann, J. Jürjens (réd.), Vienna University of Technology, pp. 40–54. – Vienna, Austria, 2006.*
- [194] D. MÉRY. – -Teaching programming methodology using Event B-. – *In : Conference The B Method: from Research to Teaching. – Nantes, 2008.*
- [195] N. BENAÏSSA, D. MÉRY. – -Développement combiné et prouvé de systèmes transactionnels cryptologiques-. – *In : AFADL 2009 Approches Formelles dans l'Assistance au Développement de Logiciels, M. Filali, P. Michel, C. Séguin (réd.), ENSEEIHT, Toulouse, IRIT Press. – 26 - 28 janvier 2009.*
- [196] Y. A. AMEUR, F. BONIOL, D. MERY, V. WIELS. – -Thematic Track: Formal Languages and Methods for Designing and Verifying Complex Embedded Systems-. – *In : Leveraging Applications of Formal Methods, Verification, and Validation, T. Margaria, B. Steffen (réd.), Lecture Notes in Computer Science, 6415, Springer, pp. 58–59. – 2010.*
- [197] D. MÉRY. – -Refinement-based guidelines for constructing algorithms-. – *In : 09381 Extended Abstracts Collection – Refinement Based Methods for the Construction of Dependable Systems, J.-R. Abrial, M. Butler, R. Joshi, E. Troubitsyna, J. C. P. Woodcock (réd.), Dagstuhl Seminar Proceedings, 09381, Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, Germany. – Dagstuhl, Germany, 2010.*

- [198] D. MÉRY, N. K. SINGH. – -EB2J : Code Generation from Event-B to Java-. – *In : SBMF - Brazilian Symposium on Formal Methods (short paper)*. – São Paulo, Brazil, septembre 2011.
- [199] Y. AIT AMEUR, D. MÉRY. – -Handling Heterogeneity in Formal Developments of Hardware and Software Systems-. – *In : Leveraging Applications of Formal Methods, Verification and Validation. Applications and Case Studies - 5th International Symposium, ISoLA 2012, Heraklion, Crete, Greece, October 15-18, 2012, Proceedings*, T. Margaria, B. Steffen (éd.), *Lecture Notes in Computer Science*, 7610, Springer, pp. 327–328. – Heraklion, Greece, octobre 2012.

## Research reports

- [200] R. FIACK, D. MÉRY. – -Case Studies in the Statechart formalism-. – *Internal Report numéro CRIN-89-R-60*, Centre de Recherche en Informatique de Nancy, may 1989. – included in a deliverable for ICARUS ESPRIT 2 PROJECT for the INDUSCAS Task.
- [201] D. MÉRY. – -A Natural Reformulation of UNITY Logics: the *NU* system-. – *Rapport Interne numéro CRIN-89-R-229*, CRIN, october 1989.
- [202] D. MÉRY. – -On the fair semantics of UNITY programs-. – *Research Report numéro CRIN-89-R-205*, Centre de Recherche en Informatique de Nancy, april 1989. – presented at the fifth british Colloquium on Theoretical Computer Science.
- [203] D. MÉRY, A. MOKKEDEM, D. ROEGEL. – -CROCOS : un environnement de preuve interactive de spécifications SDL-. – *Rapport numéro numéro de convention 89-58 00 790 92 45/PAA*, Centre de Recherche en Informatique de Nancy, 1992.
- [204] J.-P. GIBSON, B. MERMET, D. MÉRY, Y. MOKHTARI. – -Spécification de services dans une logique temporelle compositionnelle-. – *Rapport de fin du lot1 du marché n°96 1B CNET-CNRS-CRIN*, Centre de Recherche en Informatique de Nancy, décembre 1996.
- [205] J.-P. GIBSON, B. MERMET, D. MÉRY. – -Spécification de services dans une logique temporelle compositionnelle-. – *Rapport de fin du lot2 du marché n°96 1b cnet-cnrs-crin*, LORIA UMR 7503 Laboratoire Lorrain de Recherche en Informatique et Applications, décembre 1997.
- [206] D. CANSELL, J.-P. GIBSON, B. MERMET, D. MÉRY. – -Spécification de services dans une logique temporelle compositionnelle-. – *Rapport final du marché n°96 1B CNET-CNRS-CRIN*, LORIA UMR 7503 Laboratoire Lorrain de Recherche en Informatique et Applications, février 1999.
- [207] T. LAMBOLEY, D. MÉRY, J.-F. PÉTIN. – -Spécification de la documentation d’exploitation d’une installation de production d’électricité-. – *Contrat d’étude ard p3136r*, CRAN et LORIA, juin 1999.
- [208] D. CANSELL, D. MÉRY. – -Développement de fonctions définies récursivement en B : Application du B événementiel-. – *Rapport de recherche*, LORIA, janvier 2002.
- [209] C. PROCH, D. CANSELL, D. MERY. – -Projet RNRT EQUAST ; SP2 Spécification incrémentale du système-. – *Rapport de recherche*, LORIA UMR 7503, Oct 2004.
- [210] P. ANR-RIMEL. – -Développement d’algorithmes répartis-. – *Livrable rimel*, LORIA, Janvier/Février 2008.
- [211] P. ANR-RIMEL. – -Intégration du temps dans le développement incrémental prouvé-. – *Livrable rimel*, LORIA, Juillet 2008.

- [212] P. ANR-RIMEL. – -Proof-based design patterns-. – *Livable rimel*, LORIA, Juillet 2008.
- [213] P. ANR-RIMEL. – -Formal System Engineering-. – *Livable RIMEL*, LORIA, Juillet 2009.
- [214] P. ANR-RIMEL. – -Probabilistic incremental proof-based development-. – *Livable RIMEL*, LORIA, Décembre 2009.
- [215] D. MÉRY, N. K. SINGH. – -Pacemaker’s Functional Behaviors in Event-B-. – *Rapport de recherche*, Université Henri Poincaré Nancy 1, 2009.
- [216] D. MÉRY, N. K. SINGH. – -Pacemaker’s Functional Behaviors in Event-B-. – *Rapport*, Université Henri Poincaré Nancy 1, 2009.
- [217] J. SIEBERT, J. REHM, V. CHEVRIER, L. CIARLETTA, D. MÉRY. – -AA4MM coordination model and event-B specification-. – *Rapport numéro RR-7081*, INRIA, 2009.
- [218] D. MÉRY, N. K. SINGH. – -Technical Report on Formal Development of Two-Electrode Cardiac Pacing System-. – *Rapport*, Université Henri Poincaré Nancy 1, février 2010.
- [219] D. MÉRY, N. K. SINGH. – -Technical Report on Formalisation of the Heart using Analysis of Conduction Time and Velocity of the Electrocardiography and Cellular-Automata-. – *Rapport*, Université Henri Poincaré Nancy 1, août 2011.
- [220] D. MÉRY, N. K. SINGH. – -Technical Report on Interpretation of the Electrocardiogram (ECG) Signal using Formal Methods-. – *Rapport*, Université Henri Poincaré Nancy 1, 2011.
- [221] D. MÉRY, N. K. SINGH. – -Modelling an Aircraft Landing System in Event-B (Full Report)-. – *Rapport*, 2014.
- [222] Z. CHENG, D. MÉRY. – -A Refinement Strategy for Hybrid System Design with Safety Constraints-. – *Research report*, Université de Lorraine ; INRIA ; CNRS, juillet 2020.
- [223] H. CIRSTEA, A. GRALL, D. MÉRY. – -Generating Distributed Programs from Event-B Models-. – *Research report*, LORIA UMR 7503 CNRS, INRIA, Université de LORRAINE, mai 2020.

## Software

- [224] D. MÉRY, A. MOKKEDEM. – *CROCOS: un environnement de preuve interactive de spécifications SDL*. – 1992.
- [225] L. FEJOZ, D. MÉRY, S. MERZ. – *DIXIT an editor for predicate diagrams..* – 2004.
- [226] D. MÉRY, N. SINGH. – *EB2ALL- The Event-B to C, C++, Java and C# Code Generator*. – 2011, <http://eb2all.loria.fr>.

## Lectures Notes

- [227] D. MÉRY. – -Cours d’Informatique Théorique-. – Polycopié, Ecole Supérieure d’Electricité 2,rue E. Belin 57000 Metz, 1987. – troisième année ESE Section IAP.
- [228] D. MÉRY. – -Cours d’Outils Logiques pour l’IA-. – Polycopié, Ecole Supérieure d’Electricité 2,rue E. Belin 57000 Metz, 1989. – troisième année ESE Section IAP.
- [229] D. CANSELL, D. MÉRY. – -Tutorial on the event-based B method : Concepts and Case Studies-, June 2004.



- [230] D. CANSSELL, D. MÉRY. – -Modélisation et développement incrémental de systèmes informatiques-. – Polycopié, Université Henri Poincaré Nancy 1 et ESIAL, Janvier 2008.
- [231] D. MÉRY. – -Modèles et Algorithmes-. – Polycopié-Exercices-Corrigés, Université de Lorraine et Telecom Nancy, Janvier 2014.
- [232] D. MÉRY. – -Modélisation des Systèmes-. – Polycopié-Exercices-Corrigés-Modèles, Université de Lorraine: Master Informatique et Telecom Nancy, Janvier 2014.
- [233] D. MÉRY. – -Algorithmique des Systèmes Parallèles et Distribués-. – <https://arche.univ-lorraine.fr/course/view.php?id=12182> (password:mery2016), Université de Lorraine (Telecom Nancy, 2A Software Engineering Group and Embedded Systems Group; Maynooth University), Septembre 2017.
- [234] D. MÉRY. – -Modélisation et vérification des systèmes informatiques(ressouces under moodle)-. – <https://arche.univ-lorraine.fr/course/view.php?id=12458> (password:lucas2016), Université de Lorraine: Telecom Nancy; Apprentissage 2A, Septembre 2017.
- [235] D. MÉRY. – -Modelling Software-based Systems (ressouces under moodle)-. – <https://arche.univ-lorraine.fr/course/view.php?id=12474> (password:mery2016), Université de Lorraine (master 2 computer science, Telecom Nancy, 3A Software Engineering Group and Embedded Systems Group; Maynooth University), Septembre 2017.

## Electronic repositories

- [236] C. RIMEL, D. MÉRY. – -Incremental Refinement of Event-B models-. – <http://rimel.loria.fr>, Septembre 2007-2017.
- [237] D. MÉRY, N. SINGH. – -EB2ALL - The Event-B to C, C++, Java and C# Code Generator-. – <http://eb2all.loria.fr>, Septembre 2011-2017.
- [238] C. IMPEX, D. MÉRY. – -IMPEX: IMPLICIT and EXPLICIT semantics integration in proof based developments of discrete systems-. – <http://impex.loria.fr> or <http://impex.gforge.inria.fr>, Septembre 2013-2017.

## 7 Preprints

- Preprint on the Event-B modelling language at the following link.
- Preprint on the Design of Correct by Construction Sequential Algorithms at the following link.

## 8 TLA<sup>+</sup> Corner

The following link provides a list of TLA<sup>+</sup> mpdels that are used in my lectures or in my publications.

## 9 Event-B Corner

The following link provides a list of Event-B mpdels that are used in my lectures or in my publications.