

Computer Science (CNU 27) · LIRMM UMR-5506

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Short Biography

Nadjib Lazaar defended his HDR (Habilitation) on november 18th, 2022 at University of Montpellier. He received his Master Sc. and PhD degrees, both in computer science from University of Rennes 1, France, in 2008 and 2011 respectively. Following his PhD, he worked as an INRIA postdoctoral researcher at INRIA-Microsoft Research Joint Center Paris-Saclay till September 2012. In 2012/2013, he worked as postdoctoral researcher at the European ICON project FP7 FET-Open in Montpellier, France. Since 2013, he is a tenured assistant professor at the University of Montpellier, and the co-head of the COCONUT team at LIRMM lab. In 2019/2020, he was assigned to CNRS for one-year full time. His research interests are situated at the cross-roads of Constraint Programming (CP), Data Mining (DM), Machine Learning (ML) and Software Engineering for Neuro-Symbolic and Trustworthy AI systems.

Education_

HDR in Computer Science

University of Montpellier

• Docent Habilitation in Computer Science (HDR). From University of Montpellier, France. Disputation date: 18 Nov. 2022. "Constraints and Learning".

PhD in Computer Science

University of Rennes 1

• Laboratory INRIA-IRISA. Team-Project: Celtique. Title: Methodology and tool for fault detection, localisation and correction of constraint programs. Qualification: "Très honorable avec félicitations du jury." (cum laude). Rennes, France, December 2011.

Master Sc. Degree in Computer Science

UNIVERSITY OF RENNES 1

• Michel Metivier foundation scholarship. Master: Computer Science Security. Thesis: Constraint-Based Local Search for Automatic Test Data Generation. Laboratory: INRIA-IRISA. Team-Project: Lande.

Engineer's degree in Computer Science

Université ES-Senia d'Oran

• Valedictorian. Thesis: Deployment and verification of cryptographic protocols in electronic commerce. internship: national stateowned oil company of Algeria (Sonatrach). Qualification: "Très honorable avec félicitations du jury." (cum laude). Oran, July, 2007.

Current and previous positions

Assistant Professor

IUT of Montpellier-Sète

• Assistant Professor at l'IUT of Montpellier-Sète (University of Montpellier), CNRS, LIRMM Laboratory. Team: COCONUT.

Team co-head

COCONUT, LIRMM

• Co-head of the COCONUT team, LIRMM (10 members). Team: COCONUT.

Montpellier, France Since 2018

Montpellier, France

Since 2013

Rennes, France Oct. 2007 - Sept. 2008

Rennes, France

Oct. 2008 - Sept. 2011

Montpellier, France

Nov. 2022

Oran, Algeria

Oct. 2002 - Sept. 2007

CNRS Postdoctoral Researcher

LIRMM, CNRS

• CNRS Postdoctoral researcher at LIRMM. **Team:** COCONUT. **European Project:** ICON (FP7 FET-Open). **Collaboration:** Christian Bessiere. **Topic:** Constraint Acquisition (Algorithms and complexities).

INRIA Postdoctoral Researcher

INRIA-MICROSOFT JOINT CENTRE

• INRIA Postdoctoral Researcher at INRIA-Microsoft Research Joint Centre. **Team-project:** TAO-LRI. **Collaborations:** Michèle Sebag, Youssef Hamadi. **Topic:** Cooperation control in Parallel SAT Solving: a Multi-armed Bandit Approach.

Awards and Honors

- Best paper award at the first IEEE international conference on Artificial Intelligence Testing (IEEE-AI Testing, San Francisco, Apr. 2019).
- Primes d'encadrement doctoral et de recherche PEDR (2015-2019) and (2019-2023).
- One-year full time CNRS assignment 2019/2020.
- Congés pour Recherches ou Conversions Thématiques (6 months CRCT 2019/2020).

Educational responsibilities _____

- Teaching activities (192h per year) main service at IUT of Montpellier-Sète.
- Director of the first and second year of the bachelor program in technology studies at IUT of Montpellier-Sète (Directeur des études première et deuxième année BUT Info Montpellier-Sète) (Since 2021).
- Leader of software engineering program at IUT de Montpellier-Sète (Since 2013).
- Leader of the fourth semester projects at IUT de Montpellier-Sète (Since 2015).
- IUT time schedule manager (2017-2019).
- Co-leader of « AI Based Software Engineering » Master 2 UM Software Engineering (Since 2021).
- Co-leader of « Constraint Reasoning» Master 2 UM Theoretical computer science (2013-2021).
- Co-leader of « Exploration Algorithms» Master 1 UM Images, Games et Intelligent Agents (2013-2020).
- Chair of the Doctoral Program at CP'18 (link).

Administrative responsibilities_

Co-head of COCONUT team, LIRMM (10 members), since 2018.

Member of recruitment committees:

- MCF IUT de Montpellier-Sète, (LIRMM, Espace-Dev), Montpellier, France, 2021.
- MCF INSA de Toulouse, LAAS lab., Toulouse, France, 2018.
- MCF IUT de Beziers, LIRMM, Montpellier, France, 2018.

Member of project committee at computer science department at LIRMM lab, since 2018.

LIRMM Scientific member at the doctoral school I2S of university of Montpellier, since 2017.

Member of organization committee of the 30 years of LIRMM (2021-2022).

Montpellier, France

Oct. 2012 - Sept. 2013

Saclay, France

Oct. 2011 - Sept. 2012

Member of organization committee of *« the 27th International Conference on Principles and Practice of Constraint Programming »*, Montpellier (CP 2021).

Member of organization committee of « *Journées Francophones de Programmation par Contraintes* », Montpellier (JFPC 2016).

Member of :

- Association for Constraint Programming (ACP).
- Association Française pour la Programmation par Contraintes AFPC.
- Development Forums of constraint programming solvers (Gecode, OPL, Choco).

Five Major Publications_

- Nadjib Lazaar. Parallel constraint acquisition. In *Thirty-Fifth AAAI Conference on Artificial Intelligence, AAAI 2021, Virtual Event, February 2-9, 2021*, pages 3860–3867. AAAI Press, 2021 (core2021: A*)
- Christian Bessiere, Frédéric Koriche, Nadjib Lazaar, and Barry O'Sullivan. Constraint acquisition. *Artificial Intelligence*, 244:315–342, 2017 (CiteScore: 8.3 IF: 9.088)
- Mohamed-Bachir Belaid, Christian Bessiere, and Nadjib Lazaar. Constraint programming for mining borders of frequent itemsets. In *Proceedings of the Twenty-eight International Joint Conference on Artificial Intelligence, IJCAI 2019, Macao, China, 10-16 August 2019* (core2021: A*)
- Nadjib Lazaar, Yahia Lebbah, Samir Loudni, Mehdi Maamar, Valentin Lemière, Christian Bessiere, and Patrice Boizumault. A global constraint for closed frequent pattern mining. In *Principles and Practice of Constraint Programming 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings*, pages 333–349, 2016 (core2018: A)
- Carlo Ieva, Arnaud Gotlieb, Souhila Kaci, and Nadjib Lazaar. Discovering program topoi via hierarchical agglomerative clustering. *IEEE Trans. Reliability*, 67(3):758–770, 2018 (CiteScore: 7.7 IF: 4.424)

Students' supervision & committees' participation

Postdoctoral Students:

• Kostandina Veljanovska. "*Reinforcement Learning Based Constraint Acquisition*". Erasmus scholarship. Dec. 2014 to Juin 2015. LIRMM.

PhD Students:

- Defended Thesis
 - 4. Abderrazak Daoudi. *"Boosting Constraint Acquisition"*. With Christian Bessiere and El Houssine Bouyakhf, defended: May 2016, AVEROES Scholarship.
 - 3. Mehdi Maamar. *"Fault localization using constraint programming and pattern mining"*. With Yahia Lebbah, defended: 29 May 2017, Campus France Scholarship.
 - 2. Mohamed Bachir Belaid. "Declarative Itemset Mining Based on Constraint Programming". With Christian Bessiere, defended: 08 Jan. 2020, Algerian government scholarship.
 - 1. Carlo Ieva. "Machine Learning Based Software Testing: a Comprehensive Study for Automated Software Verification and Validation". With Arnaud Gotlieb and Souhila Kaci, defended: 23 Nov. 2018, SIMULA funding (Norway).
- Current thesis:

- 3. Grégoire Menguy. *"Combining Program Analysis and Machine Learning for Cybersecurity"*. With Sébastien Bardin and Arnaud Gotlieb, ongoing (2019-2022), CEA scholarship.
- 2. Nassim Belmecheri. "Boosting Combinatorial Problem Solving with Machine Learning". With Yahia Lebbah, ongoing (2019-2022), Campus France Scholarship.
- 1. Farah Amel Benzeghimi. "Numerical Pattern Mining Based on Constraint Programming". With Christian Bessiere, ongoing (2019-2022), Algerian government scholarship.

Aborted thesis:

1. Robin Arcangioli. "Multiple Constraint Acquisition". With Christian Bessiere, Aborted (2015-2018), MESR scholarship.

Master Students: The training periods/internships took place at LIRMM CNRS/UM, Montpellier, France.

- 6. Areski Himeur. "Deep Constraint Acquisition". With Christian Bessiere and Clement Carbonnel, University of Montpellier, June 2021.
- 5. Nassim Adrao. "*Robust Constraint Acquisition*". With Christian Bessiere and Clement Carbonnel, University of Montpellier, June 2021.
- 4. Mehdi Zrhal. "Declarative Data Mining". With Christian Bessiere and Philippe Vismara, University of Montpellier, June 2019.
- 3. Robin Arcangioli. "Constraint Acquisition". With Christian Bessiere, University of Montpellier, June 2015.
- 2. Gaelle Hisler. "*Preferences based raisoning*". With Christian Bessiere, Remi Coletta and Souhila Kaci, University of Montpellier, June 2014.
- 1. Abdelmourhit Maziane. "Clustering under constraints". With Christian Bessiere, Remi Coletta and Joel Quinqueton, University of Montpellier, June 2013.

Other students:

- 3. Teddy Lee. "*Constraint Acquisition Platform*". Three months training period. Second year IUT of Montpellier, July 2019.
- 2. Julien Brochier. "Cognitive aspects in Constraint Acquisition". One month training period. First year at Bordeaux INP. July 2018.
- 1. Julien Revel. "Web application for Constraint Acquisition". Two month training period. Telecom Nancy, July 2015.

Jury member in doctoral committees:

• Examinator: Thesis of Namrata Patel. "*Mise en œuvre des préférences dans des problèmes de décision*". University of Montpellier, October 2016.

Collaborations

International collaborations:

- SIMULA lab. Oslo, Norway: (Arnaud Gotlieb, Dusica Marijan, Helge Spieker, Bachir-Mohamed Belaid).
- ABB Robotics, Bryne, Norway: (Morten Mossige).
- University of Oran, Algeria: (Yahia Lebbah, Noureddine Aribi).
- University of Western Macedonia, Kozani, Greece: (Kostas Stergiou, Dimosthenis C. Tsouros).
- University College Cork: (Barry O'Sullivan, Helmut Simonis).

- Swedish Institute of Computer Science, Stockholm, Sweden: (Mats Carlsson).
- Nicta Australia: (Toby Walsh).
- Carnegie Mellon University, USA: (Nina Narodytska).
- University of Laval Quebec, Canada: (Claude-Guy Quimper).
- University of Rabat, Morocco: (El-Houcine Bouyakhf, Redouane Ezzahir).

National collaborations:

- CEA Paris Saclay: (Sébastien Bardin).
- LAAS-CNRS Toulouse: (Emmanuel Hebrard).
- INRA Agro ParisTech: (George Katsirelos).
- CRIL-Lens: (Frédéric Koriche, Anastasia Paparrizou).
- TASK-Nantes: (Samir Loudni).

International mobility & guest speaker

Visiting researcher/professor at:

- SIMULA lab. Oslo, Norway (1 week), Nov 2021.
- SIMULA lab. Oslo, Norway (1 week), Dec 2019.
- LITIO lab. Oran, Algeria (2 weeks), July 2019.
- SIMULA lab. Oslo, Norway (1 week), May 2019.
- SIMULA lab. Oslo, Norway (1 week), December 2018.
- SIMULA lab. Oslo, Norway (1 week), October 2018.
- LITIO lab. Oran, Algeria (1 week), July 2018.
- The Insight Centre for Data Analytics, Cork, Ireland (1 week), May 2013.

Invited seminars and guest lectures :

- 1. Declarative Data Mining. PFIA Tutorial. June 2021, Bordeaux (link).
- 2. *Constraint Acquisition.* ACP Summer School. Nov 2020, Toulouse (link).
- 3. *Declarative Data Mining for Software Testing.* GT-GLIA GDR-GPL, Montpelliers, Apr. 2021.
- 4. Dagstuhl Seminar 20421 on Data-Driven Combinatorial Optimization, Dagstuhl, October 2020.
- 5. Declarative Data Mining for Software Testing. GT-Verif GDR-IM, Nantes, June 2019.
- 6. Declarative Data Mining. Big Data/IA LIRMM Day, SupAgro, Montpellier, June 2019.
- 7. *Constraint Acquisition*. LIRMM Seminar, Montpellier, June 2019.
- 8. Constraint Acquisition. Invited Talk at NordConsNet 2019 workshop, Oslo, Norway, May 2019
- 9. *Specialised vs Declarative Data Mining : Software Testing Applications*. Certus 13th User Partner Workshop, SIMULA, Oslo, October 2018.
- 10. *Constraint Acquisition, Algorithms and Complexities*. 23rd International Symposium on Mathematical Programming (ISMP'18), Bordeaux, July 2018.
- 11. Constraint Acquisition. CAVIAR group Meeting, DGR-IA, Jussieu, Paris, November 2017.

- 12. *Fault localization using itemset mining under constraints*. Invited talk at the 32nd IEEE/ACM International Conference on Automated Software Engineering (ASE'17), University of Illinois, Urbana-Champaign, Illinois, USA, October 2017.
- 13. Constraint Acquisition. Pôle Science des Données et de la Décision UMR LS2N Nantes, May 2017.
- 14. *New approaches to Constraint Acquisition*. Invited Talk at ROADEF'17- GDR-RO groupRO&Constraints, Metz, February 2017.
- 15. *QUACQ and ModelSeeker combination*. ICON european project meeting, Leuven, Belgium, February 2014.
- 16. *Quick Acquisition*. ANR BR4CP project meeting, Paris, April 2013.
- 17. *Ask&Solve solver*. ICON european project meeting. Montpellier, april 2013.
- 18. QUACQ : Quick Acquisition. ICON european project meeting. Leuven, Belgium, February 2013.
- 19. Constraint Acquisition. ICON european project meeting. Pisa, Italy November 2012.
- 20. Cooperation-control in Parallel SAT Solving: a Multi-armed Bandit Approach. GREYC lab. Caen, June 2012.
- 21. *A learning approach for parallel SAT solving.* KU Leuven, Belgium. May 2012.
- 22. A methodology and a tool for test, fault localization and automatic correction of constraints programs. CeP-I3S, Nice, May 2012.
- 23. Testing Constraint Programs. CRIL lab, Lens, April 2011.

Scientific animation and responsibilities

Work group Animation:

• Animator (with Frederic Koriche) of the work group "Constraints and Machine Learning" (GT-CAVIAR) of GDR-IA (Since 2017).

Organization of Summer Schools:

- European Summer School on Artificial Intelligence and Software Verification and Validation, Montpellier, VIVA 2021.
- International Summer School on Combinatorial Optimization, Constraints and Learning, Toulouse, 2020.

Editorship and membership:

- Workflow Chair at the IJCAI-PRICAI2020, the 29th International Joint Conference on Artificial Intelligence and the 17th Pacific Rim International Conference on Artificial IntelligenceThe International Joint Conference on Artificial Intelligence IJCAI 2020.
- Track Chair at the International Conference on Principles and Practice of Constraint Programming CP 2017-2021.
- Senior PC at the International Joint Conference on Artificial Intelligence IJCAI 2021.
- Member of the committee program of international conferences on Artificial Intelligence (IJCAI 2018-2022, IJCAI Survey Track 2020-2021, AAAI 2019-2022, CP 2016-2022, AAMAS 2021, ECAI 2020).
- Member of the committee program of The IEEE International Conference on Artificial Intelligence Testing AiTest 2019 and 2021.
- Member of the committee program of The IEEE International Conference on Software Quality, Reliability & Security QSIC 2013, 2014 and QSR 2015.

- Member of the committee program of Languages for Data Mining and Machine Learning workshop LML 2013.
- Member of the committee program of Journées Francophones de Programmation par Contraintes from 2015 to 2019.

Peer-reviewing activities:

- For the following Journals: Artificial Intelligence (AIJ), Journal of Artificial Intelligence Research (JAIR), Constraints Journal, Aircraft Engineering and Aerospace Technology Journal, Soft Computing Journal.
- Of some parts of the following books: Data Mining and Constraint Programming, Foundations of a Cross-Disciplinary Approach. Springer, 2014.
- For the following international conferences: IJCAI since 2016; AAAI since 2017; CP since 2013; AITest since 2019; JFPC since 2012; QSR 2015; QSIC 2013-2014; LML 2013; TAP 2011; CSTVA 2011.

Member of organization committee of CP 2021 and JFPC 2016.

Software development

- Constraint Acquisition platform: written in Java and using Choco Solver 4.0.10 (github link) ((demo)).
- Declarative Data Mining platforms:
 - CPMINER is a platform for declarative data mining including several implementations of global constraints for itemset and association rules mining, written in C++, Java and Scala languages (link).
 - CHOCOMINER: Declarative data mining module for Choco Solver (gitlab link).
- **BESS solver:** a Parallel SAT Solver with a cooperation control based on multi-armed bandit approach, written in C++ (link).
- **CPTEST tool:** a tool for fault detection, localisation and correction of constraint programs written in Java and based on Ilog-Solver (link).
- **cptest4choco:** a Choco solver library for fault detection, localization and correction in constraint programs, written in Java (link).

Publications _

BOOK CHAPTER

 Christian Bessiere, Abderrazak Daoudi, Emmanuel Hebrard, George Katsirelos, Nadjib Lazaar, Younes Mechqrane, Nina Narodytska, Claude-Guy Quimper, and Toby Walsh. New approaches to constraint acquisition. In *Data Mining and Constraint Programming - Foundations of a Cross-Disciplinary Approach*, pages 51–76. 2016

ACADEMIC JOURNALS

- 4. Carlo Ieva, Arnaud Gotlieb, Souhila Kaci, and Nadjib Lazaar. Discovering program topoi via hierarchical agglomerative clustering. *IEEE Trans. Reliability*, 67(3):758–770, 2018
- 3. Christian Bessiere, Frédéric Koriche, Nadjib Lazaar, and Barry O'Sullivan. Constraint acquisition. *Artificial Intelligence*, 244:315–342, 2017

- 2. Mehdi Maamar, Nadjib Lazaar, Samir Loudni, and Yahia Lebbah. Fault localization using itemset mining under constraints. *Automated Software Engineering*, 24(2):341–368, 2017
- 1. Nadjib Lazaar, Arnaud Gotlieb, and Yahia Lebbah. A CP framework for testing CP. *Constraints*, 17(2):123–147, 2012

INTERNATIONAL CONFERENCES

- 24. Mohamed-Bachir Belaid, Nassim Belmecheri, Arnaud Gotlieb, Nadjib Lazaar, and Helge Spieker. GEQCA: Generic qualitative constraint acquisition. In *Thirty-Sixth AAAI Conference on Artificial Intelligence, AAAI* 2022, Virtual Event, February 22- March 1, 2022. AAAI Press, 2022
- 23. Nadjib Lazaar. Parallel constraint acquisition. In *Thirty-Fifth AAAI Conference on Artificial Intelligence, AAAI 2021, Virtual Event, February 2-9, 2021*, pages 3860–3867. AAAI Press, 2021
- 22. Mohamed-Bachir Belaid and Nadjib Lazaar. Constraint programming for itemset mining with multiple minimum supports. In 33rd IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2021, Virtually. IEEE Computer Society, 2021
- 21. Mathieu Collet, Arnaud Gotlieb, Nadjib Lazaar, Mats Carlsson, Dusica Marijan, and Morten Mossige. Robtest: A CP approach to generate maximal test trajectories for industrial robots. In Helmut Simonis, editor, *Principles and Practice of Constraint Programming - 26th International Conference, CP 2020, Louvain-la-Neuve, Belgium, September 7-11, 2020, Proceedings*, volume 12333 of *Lecture Notes in Computer Science*, pages 707–723. Springer, 2020
- 20. Mohamed-Bachir Belaid, Christian Bessiere, and Nadjib Lazaar. Constraint programming for mining borders of frequent itemsets. In *Proceedings of the Twenty-eight International Joint Conference on Artificial Intelligence, IJCAI 2019, Macao, China, 10-16 August 2019*
- 19. Noureddine Aribi, Nadjib Lazaar, Yahia Lebbah, Samir Loudni, and Mehdi Maamar. A multiple fault localization approach based on multicriteria analytical hierarchy process. In *First IEEE International Conference on Artificial Intelligence Testing, AiTest 2019, San Francisco East Bay, California, USA, April* 4-9, 2019
- 18. Carlo Ieva, Arnaud Gotlieb, Nadjib Lazaar, and Souhila Kaci. Deploying smart program understanding on a large code base. In *First IEEE International Conference on Artificial Intelligence Testing, AiTest 2019, San Francisco East Bay, California, USA, April 4-9*, 2019
- 17. Mathieu Collet, Arnaud Gotlieb, Nadjib Lazaar, and Morten Mossige. Stress testing of single-arm robots through constraint-based generation of continuous trajectories. In *First IEEE International Conference on Artificial Intelligence Testing, AiTest 2019, San Francisco East Bay, California, USA, April 4-9*, 2019
- 16. Mohamed-Bachir Belaid, Christian Bessiere, and Nadjib Lazaar. Constraint programming for association rules. In *Proceedings of the 2019 SIAM International Conference on Data Mining, SDM 2019, Calgary, Alberta, Canada, May 2 - 4, 2019.* SIAM, 2019
- 15. Christian Bessiere, Nadjib Lazaar, and Mehdi Maamar. User's constraints in itemset mining. In *Principles and Practice of Constraint Programming 24th International Conference, CP 2018, Lille, France, August 27-31, 2018, Proceedings*, pages 537–553, 2018
- 14. Hajar Ait Addi, Christian Bessiere, Redouane Ezzahir, and Nadjib Lazaar. Time-bounded query generator for constraint acquisition. In *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, pages 1–17, 2018
- Carlo Ieva, Arnaud Gotlieb, Souhila Kaci, and Nadjib Lazaar. Discovering program topoi through clustering. In Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence, (AAAI-18), the 30th innovative Applications of Artificial Intelligence (IAAI-18), and the 8th AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI-18), New Orleans, Louisiana, USA, February 2-7, 2018, pages 7771–7778, 2018

- 12. Noureddine Aribi, Mehdi Maamar, Nadjib Lazaar, Yahia Lebbah, and Samir Loudni. Multiple fault localization using constraint programming and pattern mining. In *29th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2017, Boston, MA, USA, November 6-8, 2017*, pages 860–867, 2017
- 11. Nadjib Lazaar, Yahia Lebbah, Samir Loudni, Mehdi Maamar, Valentin Lemière, Christian Bessiere, and Patrice Boizumault. A global constraint for closed frequent pattern mining. In *Principles and Practice* of Constraint Programming - 22nd International Conference, CP 2016, Toulouse, France, September 5-9, 2016, Proceedings, pages 333–349, 2016
- Abderrazak Daoudi, Younes Mechqrane, Christian Bessiere, Nadjib Lazaar, and El-Houssine Bouyakhf. Constraint acquisition with recommendation queries. In *Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, 9-15 July 2016*, pages 720–726, 2016
- 9. Robin Arcangioli, Christian Bessiere, and Nadjib Lazaar. Multiple constraint acquisition. In *Proceedings* of the Twenty-Fifth International Joint Conference on Artificial Intelligence, IJCAI 2016, New York, NY, USA, 9-15 July 2016, pages 698–704, 2016
- 8. Abderrazak Daoudi, Nadjib Lazaar, Younes Mechqrane, Christian Bessiere, and El-Houssine Bouyakhf. Detecting types of variables for generalization in constraint acquisition. In 27th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2015, Vietri sul Mare, Italy, November 9-11, 2015, pages 413–420, 2015
- 7. Mehdi Maamar, Nadjib Lazaar, Samir Loudni, and Yahia Lebbah. Localisation de fautes à l'aide de la fouille de donnees sous contraintes. In *Colloque sur l'Optimisation et les Systemes d'Information COSI 2015, 1 au 3 Juin 2015, Oran, Algerie*, 2015
- 6. Christian Bessiere, Remi Coletta, and Nadjib Lazaar. Solve a constraint problem without modeling it. In 26th IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2014, Limassol, Cyprus, November 10-12, 2014, pages 1–7, 2014
- Christian Bessiere, Remi Coletta, Abderrazak Daoudi, Nadjib Lazaar, Younes Mechqrane, and El-Houssine Bouyakhf. Boosting constraint acquisition via generalization queries. In ECAI 2014 - 21st European Conference on Artificial Intelligence, 18-22 August 2014, Prague, Czech Republic - Including Prestigious Applications of Intelligent Systems (PAIS 2014), pages 99–104, 2014
- 4. Christian Bessiere, Remi Coletta, Emmanuel Hebrard, George Katsirelos, Nadjib Lazaar, Nina Narodytska, Claude-Guy Quimper, and Toby Walsh. Constraint acquisition via partial queries. In *IJCAI 2013, Proceedings of the 23rd International Joint Conference on Artificial Intelligence, Beijing, China, August 3-9, 2013*, pages 475–481, 2013
- 3. Nadjib Lazaar, Arnaud Gotlieb, and Yahia Lebbah. A framework for the automatic correction of constraint programs. In *Fourth IEEE International Conference on Software Testing, Verification and Validation, ICST 2011, Berlin, Germany, March 21-25, 2011*, pages 319–326, 2011
- 2. Nadjib Lazaar, Arnaud Gotlieb, and Yahia Lebbah. Fault localization in constraint programs. In 22nd *IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2010, Arras, France, 27-29 October 2010 Volume 1*, pages 61–67, 2010
- 1. Nadjib Lazaar, Arnaud Gotlieb, and Yahia Lebbah. On testing constraint programs. In *Principles and Practice of Constraint Programming CP 2010 16th International Conference, CP 2010, St. Andrews, Scotland, UK, September 6-10, 2010. Proceedings*, pages 330–344, 2010

INTERNATIONAL WORKSHOPS

8. Mohamed-Bachir Belaid, Arnaud Gotlieb, and Nadjib Lazaar. Solve optimization problems with unknown constraint networks. In *The fifth Workshop on Progress Towards the Holy Grail co-located with the 27th International Conference on Principles and Practice of Constraint Programming (CP 2021), Virtually*, 2021

- 7. Robin Arcangioli and Nadjib Lazaar. Multiple constraint acquisition. In *Proceedings of the IJCAI 2015* Joint Workshop on Constraints and Preferences for Configuration and Recommendation and Intelligent Techniques for Web Personalization co-located with the 24th International Joint Conference on Artificial Intelligence (IJCAI 2015), Buenos Aires, Argentina, July 27, 2015., 2015
- 6. Noureddine Aribi, Souhila Kaci, and Nadjib Lazaar. Towards an mdd-based representation of preferences. In *Proceedings of the IJCAI 2015 Joint Workshop on Constraints and Preferences for Configuration and Recommendation and Intelligent Techniques for Web Personalization co-located with the 24th International Joint Conference on Artificial Intelligence (IJCAI 2015), Buenos Aires, Argentina, July 27, 2015.*, 2015
- 5. Nadjib Lazaar, Youssef Hamadi, Said Jabbour, and Michele Sebag. Cooperation control in parallel sat solving: a multi-armed bandit approach. In *Workshop on Bayesian Optimization and Decision Making, held within The 26th Annual Conference on Neural Information Processing Systems NIPS 2012 Harrahs and Harveys, Lake Tahoe, December, 3-8, 2012*, 2012
- 4. Nadjib Lazaar, Noureddine Aribi, Arnaud Gotlieb, and Yahia Lebbah. DFA-based formulation for constraint negation. In *The 11th workshop on Constraint Modelling and Reformulation held within Principles and Practice of Constraint Programming - ModRef 2012 - 10th International Conference, CP 2012, Quebec City, Canada, October 8-12, 2012, 2012*
- 3. Arnaud Gotlieb, Tristan Denmat, and Nadjib Lazaar. Constraint-based reachability. In *Proceedings 14th International Workshop on Verification of Infinite-State Systems, Infinity 2012, Paris, France, 27th August 2012.*, pages 25–43, 2012
- 2. Nadjib Lazaar. CPTEST: A framework for the automatic fault detection, localization and correction of constraint programs. In *Fourth IEEE International Conference on Software Testing, Verification and Validation, ICST 2012, Berlin, Germany, 21-25 March, 2011, Workshop Proceedings*, pages 320–321, 2011
- 1. Arnaud Gotlieb, Nadjib Lazaar, and Yahia Lebbah. Towards constraing-based local search for automatic test data generation. In *First International Conference on Software Testing Verification and Validation, ICST 2008, Lillehammer, Norway, April 9-11, 2008, Workshops Proceedings*, page 195, 2008

NATIONAL CONFERENCES

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- 4. Abderrazak Daoudi, Christian Bessiere, Remi Coletta, Nadjib Lazaar, Younes Mechqrane, and El-Houssine Bouyakhf. Acquisition de contraintes par requêtes de généralisation. In *Proceedings of the 10ème Journées Francophones de Programmation par Contraintes (JFPC)*, June 2014
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