

Jean-Guy Mailly | Ph.D. in Computer Science

LIPADE - Université de Paris, 45 rue des Saints Pères – 75006 – Paris, France

✉ jean-guy.mailly@u-paris.fr • 🌐 www.math-info.univ-paris5.fr/~jmailly

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Current Position

Université de Paris

Associate Professor, LIPADE (Laboratoire d'Informatique de Paris Descartes) Since Sept. 2016

Member of the research group on Distributed Artificial Intelligence (DAI).

Previous Positions

Vienna University of Technology

Project Assistant, Institute of Information Systems

Oct. 2015 – Aug. 2016

Member of the research group on Databases and Artificial Intelligence (DBAI).

Part of project Fragment-Driven Belief Change funded by the Austrian Science Fund (FWF) under grant P25521.

University of Artois

Ph.D. Student, CRIL (Centre de Recherche en Informatique de Lens)

Oct. 2012 – Sept. 2015

Member of the research group on Knowledge Representation and Reasoning.

Education

Université d'Artois

Ph.D. in Computer Science

Lens

2012–2015

Research topics: knowledge representation and reasoning, abstract argumentation, belief revision

Université d'Artois

Master Degree, with honours

Lens

2010–2012

Master in Computer Science: Intelligent Systems and Applications

Université d'Artois

Licence Degree, with distinction

Lens

2007–2010

Licence in Mathematics and Computer Science, Special topic: Computer Science

High School Anatole France

Baccalaureate, with first class honours

Lillers

2007

Baccalaureate in Science, Special topic: Mathematics

Ph.D. Thesis

Title: *Dynamics of Argumentation Frameworks*

Supervisors: Sylvie Coste-Marquis, Sébastien Konieczny, Pierre Marquis – Centre de Recherche en Informatique de Lens (CRIL)

Defense Committee:

President:

- Salem Benferhat

Reviewers:

- Gerhard Brewka
- Stefan Woltran

Guest members:

- Andreas Herzig
- Anthony Hunter

Scientific Activities

Projects.....

- Member of the project *Fragment-Driven Belief Change* funded by the FWF (Austrian Science Fund) (2015-2016)
- Member of the project *AMANDE: Advanced Multilateral Argumentation for DELiberation* funded by the ANR (French National Research Agency) (2013-2018)

Steering Committee.....

- Member of the International Competition on Computational Models of Argumentation (ICCMA) steering committee (since January 2018)
 - Secretary of the ICCMA steering committee (since October 2019)

Editorial Board Member.....

- Argument & Computation (2021-...)

Program Committee Member.....

- 30th International Joint Conference on Artificial Intelligence (IJCAI 2021), Senior PC Member
- 20th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2021)
- 35th AAAI Conference on Artificial Intelligence (AAAI 2021)
- 36th ACM/SIGAPP Symposium On Applied Computing (SAC 2021) - Track on Knowledge Representation and Reasoning
- 3rd International Workshop on Systems and Algorithms for Formal Argumentation (SAFA 2020)
- 8th International Conference on Computational Models of Argument (COMMA 2020)
- 17th Conference on Principles of Knowledge Representation and Reasoning (KR 2020)
- 18èmes Rencontres des Jeunes Chercheurs en Intelligence Artificielle (RJCIA 2020)
- 2nd International Workshop on EXplainable and TRansparent Autonomous Agents and Multi-Agent Systems (EXTRAAMAS 2020)
- 29th International Joint Conference on Artificial Intelligence/17th Pacific Rim International Conference on Artificial Intelligence (IJCAI-PRICAI 2020)
- 19th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2020)
- 23rd European Conference on Artificial Intelligence (ECAI 2020)
- 35th ACM/SIGAPP Symposium On Applied Computing (SAC 2020) - Track on Knowledge Representation and Reasoning
- 34th AAAI Conference on Artificial Intelligence (AAAI 2020)
- 17èmes Rencontres des Jeunes Chercheurs en Intelligence Artificielle (RJCIA 2019)
- 1st International Workshop on EXplainable and TRansparent Autonomous Agents and Multi-Agent Systems (EXTRAAMAS 2019)
- 28th International Joint Conference on Artificial Intelligence (IJCAI 2019)

- 18th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2019)
- 34th ACM/SIGAPP Symposium On Applied Computing (SAC 2019) - Track on Knowledge Representation and Reasoning
- 2nd International Workshop on Systems and Algorithms for Formal Argumentation (SAFA 2018)
- 2ème Conférence Nationale en Intelligence Artificielle/16èmes Rencontres des Jeunes Chercheurs en Intelligence Artificielle (CNIA-RJCIA 2018)
- 7th International Conference on Computational Models of Argument (COMMA 2018)
- 27th International Joint Conference on Artificial Intelligence/23rd European Conference on Artificial Intelligence (IJCAI-ECAI 2018)
- 32nd AAAI Conference on Artificial Intelligence (AAAI 2018)
- 33rd ACM/SIGAPP Symposium On Applied Computing (SAC 2018) - Track on Knowledge Representation and Reasoning
- 15èmes Rencontres des Jeunes Chercheurs en Intelligence Artificielle (RJCIA 2017)
- 26th International Joint Conference on Artificial Intelligence (IJCAI 2017)
- 30th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2017) - Special Track on Applications of Argumentation
- 1st International Workshop on Systems and Algorithms for Formal Argumentation (SAFA 2016)
- 6th International Conference on Computational Models of Argument (COMMA 2016)

Reviewer for Journal Papers.....

- Annals of Mathematics and Artificial Intelligence
- Group Decision and Negotiation
- Ecological Informatics
- Journal of Artificial Intelligence Research
- Artificial Intelligence
- Argument & Computation
- International Journal of Approximate Reasoning

Reviewer for Conference and Workshop Papers.....

- 12th International Conference on Algorithms and Complexity (CIAC 2021)
- 16th International Conference on Principles of Knowledge Representation and Reasoning (KR 2018)
- 16th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2017)
- 31st AAAI Conference on Artificial Intelligence (AAAI 2017)
- 22nd European Conference on Artificial Intelligence (ECAI 2016)
- 6th International Workshop on Computational Social Choice (COMSOC 2016)
- 25th International Joint Conference on Artificial Intelligence (IJCAI 2016)
- 15th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2016)
- 9th International Symposium on Foundations of Information and Knowledge Systems (FOLKS 2016)
- 30th AAAI Conference on Artificial Intelligence (AAAI 2016)
- 8th International Conference on Knowledge Science, Engineering and Management (KSEM 2015)
- 21st European Conference on Artificial Intelligence (ECAI 2014)
- 14th European Conference on Logics in Artificial Intelligence (JELIA 2014)

Organization of Events.....

- Chair of the Fourth International Competition on Computational Models of Argumentation (ICCMA 2021)

- Co-organizer of the Second Workshop on Argument Strength/AMANDE Project Workshop, IRIT, April 2018
- Co-organizer of the Workshop on New Trends in Belief Change, TU Wien, May 2016
- Co-organizer of the Workshop on Change in Argumentation, Université d'Artois, September 2015

Student Supervision.....

- Ph.D. Co-Supervisor, Yohann Bacquey, *Strength-based Argumentation Frameworks* (2020-...)
- Master 2 Research Internship Co-Spervisor, Imene Sai, *Exploring Control Argumentation Frameworks* (2020)
- Master 1 Mentored Project Supervisor, Rachid Bellazreg and Serigne Gning, *On the Impact of SAT Solvers for Reasoning with Abstract Argumentation* (2020)
- Master 1 Mentored Project Supervisor, Salomé Attar and Louis de Ferluc, *Realization of Extensions in Abstract Argumentation* (2020)
- Master 2 Research Internship Co-Spervisor, Fabrice Gaigner, *Control Argumentation Frameworks with Probabilities* (2019)
- DUT Internship Supervisor, Etienne Lopvet, *Ajout de fonctionnalités au logiciel d'argumentation CoQuiAAS* (2017)
- Master 2 Research Internship Co-Spervisor, Salim Kecili, *Contraintes d'ensemble dans un débat argumenté* (2017)
- Master 1 Mentored Project Supervisor, Kalidou Ba and Appolinaire Dekli, *Outils pour le Raisonnement Non Monotone via la plateforme Tweety* (2017)
- Master 1 Research Internship Co-Supervisor, Aurélien Lucas, *Mesures d'incohérence à base d'argumentation* (2015)
- Master 1 Research Internship Co-Supervisor, Oumaima Mehaibia, *Implémentation d'opérateurs de révision via SAT* (2014)

Administration

- Member of the *conseil de laboratoire* (laboratory concil) of LIPADE, Université Paris Descartes (since 2019)
- Member of the *comité de préfiguration facultaire* (faculty prefiguration committee) of the Faculty of Science (2018)
- Member of the *conseil scientifique local* (local scientific concil) of the Faculty of Mathematics and Computer Science, Université Paris Descartes (since 2017)

Software Development

CoQuiAAS

Argumentation Solver

Joint work with Jean-Marie Lagniez and Emmanuel Lonca. CoQuiAAS has received several awards:

- First place at the First International Competition on Computational Models of Argumentation (ICCMA'15);
- First place at the Second International Competition on Computational Models of Argumentation (ICCMA'17) for the GR track.
- Second place at the Third International Competition on Computational Models of Argumentation (ICCMA'19) for the Main Track and the Dynamic Track.

Solver description: [28, 25, 24]. Full paper: [16].

Teaching Experience

Université de Paris (formerly Paris Descartes)

Paris

Associate Professor

2016 – ...

Faculty of Mathematics and Computer Science. Teachings for Bachelor and Master in Computer Science:

Bachelor level:

- Formal Languages Theory
- Introduction to Artificial Intelligence
- Advanced Object Oriented Programming

Master level:

- Non-Monotonic Reasoning
- Algorithmic Complexity
- Knowledge Representation and Reasoning
- Automated Negotiation

Pedagogical innovation centre of Université de Paris. Teaching for Bachelor students in various domains:

- Introduction to Programming in Python

Université d'Artois

Lens

Instructorship in the higher education

2012-2015

Teachings in the institute of technology of Lens.

Some teachings in first and second year of the DUT (Diplôme Universitaire de Technologie) on Computer Science and the DUT on Multimedia and Internet Technologies:

- Object Oriented Programming
- Algorithmic
- Documents Conception
- Web Programming
- Android
- Databases

Languages

French: Perfectly fluent

Native language

English: Professional competence

Publications

Synthesis.....

- 4 journal papers: Arg&Comp (3), JAAMAS (1)
- 15 international conferences papers: KR (3), IJCAI (2), AAMAS (2), ECAI (1), AAI (1), COMMA (2), JELIA (1), ICTAI (1), SUM (1), EUMAS (1)
- 7 international workshop papers: NMR (3), TAFE (1), SAFA (2), ACAI (1)
- 5 extended abstracts: IJCAI (1), ICCMA (3), KR(1)
- 9 national conference papers: JIAF (8), JFPC (1)

International Journals.....

[1] Yannis Dimopoulos, Jean-Guy Mailly, and Pavlos Moraitis. Arguing and negotiating using incomplete negotiators profiles. *Autonomous Agents and Multi-Agent Systems*. To appear.

[2] Julien Rossit, Jean-Guy Mailly, Yannis Dimopoulos, and Pavlos Moraitis. United we stand: Accruals in strength-based argumentation. *Argument & Computation*. To appear.

[3] Jean-Guy Mailly and Marco Maratea. Assessment of benchmarks for abstract argumentation. *Argument & Computation*, 10(2):107–112, 2019.

[4] Sylvie Doutre and Jean-Guy Mailly. Constraints and changes: A survey of abstract argumentation dynamics. *Argument & Computation*, 9(3):223–248, 2018.

International Conferences.....

- [5] Fabrice Gaigner, Yannis Dimopoulos, Jean-Guy Mailly, and Pavlos Moraitis. Probabilistic control argumentation frameworks. In *20th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2021)*, 2021. To appear.
- [6] Jean-Guy Mailly. Possible controllability of control argumentation frameworks. In *8th International Conference on Computational Models of Argument (COMMA 2020)*, pages 283–294, 2020.
- [7] Jean-Guy Mailly and Julien Rossit. Argument, I choose you! Preferences and ranking semantics in abstract argumentation. In *17th International Conference on Principles of Knowledge Representation and Reasoning (KR 2020)*, pages 647–651, 2020.
- [8] Yannis Dimopoulos, Jean-Guy Mailly, and Pavlos Moraitis. Argumentation-based negotiation with incomplete opponent profiles. In *18th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2019)*, pages 1252–1260, 2019.
- [9] Yannis Dimopoulos, Jean-Guy Mailly, and Pavlos Moraitis. Control argumentation frameworks. In *32nd AAAI Conference on Artificial Intelligence (AAAI 2018)*, 2018.
- [10] Sylvie Doutre and Jean-Guy Mailly. Comparison criteria for argumentation semantics. In *15th European Conference on Multi-Agent Systems (EUMAS 2017)*, 2017.
- [11] Sylvie Doutre and Jean-Guy Mailly. Semantic change and extension enforcement in abstract argumentation. In *11th International Conference on Scalable Uncertainty Management (SUM 2017)*, 2017.
- [12] Sylvie Doutre and Jean-Guy Mailly. Quantifying the difference between argumentation semantics. In *6th International Conference on Computational Models of Argument (COMMA 2016)*, pages 255–262, 2016.
- [13] Gerhard Brewka, Jean-Guy Mailly, and Stefan Woltran. Translation-based revision and merging for minimal horn reasoning. In *22nd European Conference on Artificial Intelligence (ECAI 2016)*, pages 734–742, 2016.
- [14] Adrian Haret, Jean-Guy Mailly, and Stefan Woltran. Distributing knowledge into simple bases. In *25th International Joint Conference on Artificial Intelligence (IJCAI 2016)*, pages 1109–1115, 2016.
- [15] Jérôme Delobelle, Adrian Haret, Sébastien Konieczny, Jean-Guy Mailly, Julien Rossit, and Stefan Woltran. Merging of abstract argumentation frameworks. In *15th International Conference on Principles of Knowledge Representation and Reasoning (KR 2016)*, pages 33–42, 2016.
- [16] Jean-Marie Lagniez, Emmanuel Lonca, and Jean-Guy Mailly. CoQuiAAS: A constraint-based quick abstract argumentation solver. In *Twenty-seventh IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2015)*, pages 928–935, 2015.
- [17] Sylvie Coste-Marquis, Sébastien Konieczny, Jean-Guy Mailly, and Pierre Marquis. Extension enforcement in abstract argumentation as an optimization problem. In *24th International Joint Conference on Artificial Intelligence (IJCAI 2015)*, pages 2876–2882, 2015.

[18] Sylvie Coste-Marquis, Sébastien Konieczny, Jean-Guy Mailly, and Pierre Marquis. A translation-based approach for revision of argumentation frameworks. In *14th European Conference on Logics in Artificial Intelligence (JELIA 2014)*, pages 77–85, 2014.

[19] Sylvie Coste-Marquis, Sébastien Konieczny, Jean-Guy Mailly, and Pierre Marquis. On the revision of argumentation systems: Minimal change of arguments statuses. In *14th International Conference on Principles of Knowledge Representation and Reasoning (KR 2014)*, pages 52–61, 2014.

International Workshops and Extended Abstracts.....

[20] Jean-Guy Mailly and Julien Rossit. Stability in abstract argumentation. In *18th International Workshop on Non-Monotonic Reasoning (NMR'20)*, 2020.

[21] Serigne Gning and Jean-Guy Mailly. On the impact of SAT solvers on argumentation solvers. In *3rd International Workshop on Systems and Algorithms for Formal Argumentation (SAFA'20)*, 2020.

[22] Jean Marie Lagniez, Emmanuel Lonca, Jean-Guy Mailly, and Julien Rossit. Introducing the fourth international competition on computational models of argumentation. In *3rd International Workshop on Systems and Algorithms for Formal Argumentation (SAFA'20)*, 2020.

[23] Julien Rossit, Jean-Guy Mailly, Yannis Dimopoulos, and Pavlos Moraitis. United we stand: Accruals in strength-based argumentation (extended abstract). In *Recently Published Research Track, 17th International Conference on Principles of Knowledge Representation and Reasoning (KR 2020)*, 2020.

[24] Jean-Marie Lagniez, Emmanuel Lonca, and Jean-Guy Mailly. CoQuiAAS v3.0: ICCMA 2019 solver description. Third International Competition on Computational Models of Argumentation (ICCMA 2019), 2019.

[25] Jean-Marie Lagniez, Emmanuel Lonca, and Jean-Guy Mailly. CoQuiAAS v2.0: Taking benefit from constraint programming to solve argumentation problems. Second International Competition on Computational Models of Argumentation (ICCMA 2017), 2017.

[26] Adrian Haret, Jean-Guy Mailly, and Stefan Woltran. Distributing knowledge into simple bases. In *16th International Workshop on Non-Monotonic Reasoning (NMR'16)*, 2016.

[27] Jean-Guy Mailly. Using enthymemes to fill the gap between logical argumentation and revision of abstract argumentation frameworks. In *16th International Workshop on Non-Monotonic Reasoning (NMR'16)*, 2016.

[28] Jean-Marie Lagniez, Emmanuel Lonca, and Jean-Guy Mailly. CoQuiAAS: Application of constraint programming for abstract argumentation. First International Competition on Computational Models of Argumentation (ICCMA 2015), 2015.

[29] Jean-Guy Mailly. Dynamic of argumentation frameworks. In *Doctoral Consortium of the 23rd International Joint Conference on Artificial Intelligence (IJCAI DC 2013)*. AAAI Press / International Joint Conferences on Artificial Intelligence, 2013.

[30] Sylvie Coste-Marquis, Sébastien Konieczny, Jean-Guy Mailly, and Pierre Marquis. On the revision of argumentation systems: Minimal change of arguments status. In *2nd International*

Workshop on Theory and Applications of Formal Argumentation (TAFa 2013), 2013. workshop at IJCAI'13.

[31] Jean-Guy Mailly. Revising argumentation systems: Argument status versus graph minimization. ACAI Summer School 2013, Student Session (ACAI 2013), 2013.

National Conferences.....

[32] Julien Rossit, Jean-Guy Mailly, Yannis Dimopoulos, and Pavlos Moraitis. United we stand: Accruals in strength-based argumentation. In *14èmes Journées d'Intelligence Artificielle Fondamentale (IAF 2020)*, 2020.

[33] Yannis Dimopoulos, Jean-Guy Mailly, and Pavlos Moraitis. Argumentation-based negotiation with incomplete opponent profiles. In *13èmes Journées d'Intelligence Artificielle Fondamentale (IAF 2019)*, 2019.

[34] Yannis Dimopoulos, Jean-Guy Mailly, and Pavlos Moraitis. Systèmes d'argumentation à contrôle. In *12èmes Journées d'Intelligence Artificielle Fondamentale (IAF 2018)*, 2018.

[35] Sylvie Doutre and Jean-Guy Mailly. Dynamique des systèmes d'argumentation : changement de sémantique et forçage d'extension. In *11èmes Journées d'Intelligence Artificielle Fondamentale (IAF 2017)*, 2017.

[36] Sylvie Doutre and Jean-Guy Mailly. How different are two argumentation semantics? In *10èmes Journées d'Intelligence Artificielle Fondamentale (IAF 2016)*, 2016.

[37] Sylvie Coste-Marquis, Sébastien Konieczny, Jean-Guy Mailly, and Pierre Marquis. Forçage d'extension en argumentation abstraite par optimisation booléenne. In *9èmes Journées d'Intelligence Artificielle Fondamentale (IAF 2015)*, 2015.

[38] Jean-Marie Lagniez, Emmanuel Lonca, and Jean-Guy Mailly. CoQuiAAS : Applications de la programmation par contraintes à l'argumentation abstraite. In *11èmes Journées Francophones de la Programmation par Contraintes (JFPC 2015)*, pages 77–85, 2015.

[39] Sylvie Coste-Marquis, Sébastien Konieczny, Jean-Guy Mailly, and Pierre Marquis. Approche par traduction pour la révision de systèmes d'argumentation. In *8èmes Journées d'Intelligence Artificielle Fondamentale (IAF 2014)*, pages 77–85, 2014.

[40] Sylvie Coste-Marquis, Sébastien Konieczny, Jean-Guy Mailly, and Pierre Marquis. Révision de systèmes d'argumentation : changement minimal du statut des arguments. In *7èmes Journées d'Intelligence Artificielle Fondamentale (IAF 2013)*, pages 107–116, 2013.

Technical Reports.....

[41] Jean-Guy Mailly. A note on rich incomplete argumentation frameworks. *CoRR*, abs/2009.04869, 2020.

Thesis.....

[42] Jean-Guy Mailly. *Dynamics of Argumentation Frameworks*. PhD thesis, Université d'Artois, 2015.

[43] Jean-Guy Mailly. Révision de systèmes d'argumentation, 2012. Master thesis, in french. English title: *Revision of Argumentation Frameworks*.