# Dr. Jean-Rémy Falleri – Curriculum Vitæ

November 11, 2024

# 1 Personal information

# 1.1 Personal data

Name: Jean-Rémy Falleri

Nationality: French
Birth date: 09/10/1982

Address: LaBRI; 351, cours de la Libération; F-33405 Talence Cedex, France

E-mail: falleri@labri.fr

Website: http://www.labri.fr/~falleri

*Phone number:* +33 5 40 00 35 23

**Research field** Software Engineering: software maintenance and evolution

# 1.2 Professional experience

09/2005 - 08/2006

	F	
since 09/2022	Bordeaux INP, Bordeaux - France	
	Full professor, computer-science departement (Enseirb-Matmeca)	
	Member of the Systems and Data research department (LaBRI)	
	Junior member of the Institut Universitaire de France (2020 - 2025)	
	Elected member of the Conseil National des Universités, Computer Science section (2015-2019)	
	Head of the Systems and Data research department (since 2021)	
	Head of the second year (since 2022)	
09/2010 - 09/2022	Bordeaux INP, Bordeaux - France	
	Associate professor, telecommunications departement (Enseirb-Matmeca)	
	Member of the Systems and Data research department (LaBRI)	
	Head of the software engineering research group (2015 - 2021)	
	Head of the first year (2017 - 2020)	
	Elected member of the Conseil National des Universités, Computer Science section (2015-2019)	
11/2009 - 08/2010	Inria, Lille - France	
	Post-doc researcher in the RMOD team of Stéphane Ducasse	
09/2006 - 08/2009	CNRS, Montpellier - France	
	Research engineer and doctoral student	
	in the MaREL and TAL teams.	
	Involved in an industrial research project between	
	the LIRMM, the CNRS and France Télécom.	
09/2006 - 08/2009	Université Montpellier 2, Montpellier - France	
	Lecturer	
09/2006 - 08/2009	Polytech'Montpellier, Montpellier - France	
	Lecturer	

Université Montpellier 1, Montpellier - France

Lecturer

#### 1.3 Education

2015 **Habilitation**, *Université de Bordeaux* 

Source Code Differencing for Software Evolution Research

Jury:

Roberto Di Cosmo (Full Prof. at Univ. Paris 7) Laurence Duchien (Full Prof. at Univ. Lille 1)

Tom Mens (Full Prof. at Univ. de Mons)

Jean-Marc Jézéquel (Full Prof. at Univ. Rennes 1)

Xavier Blanc (Full Prof. at Université de Bordeaux)

2006 - 2009 **PhD**, Université Montpellier 2

Contributions to Model Driven Engineering: alignment and refactoring of class models

Jury:

Stéphane Ducasse (Research director at Inria)

Jean-Marc Jézéquel (Full Prof. at Université de Rennes)

Michel Dao (Research Engineer at Orange Labs) Yves Lepage (Full Prof. at Université de Caen)

Violaine Prince (Full Prof. at l'Université Montpellier 2)

Supervisor:

Marianne Huchard (Full Prof. at l'Université Montpellier 2)

Co-supervisors:

Mathieu Lafourcade (Associate Prof. at Université Montpellier 2) Clémentine Nebut (Associate Prof. at l'Université Montpellier 2)

2005 - 2006 **Master degree**, Université Montpellier 2

Major: computer science

With honors

2001 - 2005 French engineer degree, IMT Mines Alès

Major: computer science

# 1.4 Career summary

After obtaining my Ph.D. in computer science from the University of Montpellier, I did a one-year post-doc at INRIA Lille Nord Europe under Stéphane Ducasse's supervision. Finally, I was recruited as an associate professor at Bordeaux-INP in the telecommunication department of the Enseirb-Matmeca school. I was recruited simultaneously as Xavier Blanc, a full professor at the University of Bordeaux. Our mission was to create a brand new research group focused on the software engineering domain and supervise all teaching activities related to software engineering.

2010-2012 was a starting period for us, having many lectures to create and only one Ph.D. student under our supervision. We also had to look for industrial partners and write grant proposals to gather funding for our team. From 2012 to 2014, we had the luck to be joined by three other permanent researchers, and we started to build a good relationship with the companies in Bordeaux. Therefore our research team gained momentum. I was awarded the French scientific excellence award (PEDR) in 2014 and 2018. This award rewards professors having good scientific activity, leading to a salary bonus lasting 4 years. In 2015, I obtained my "habilitation" (a French diploma allowing researchers to supervise Ph.D. students officially), and I became head of the software engineering research group. From 2015 to 2019, I was elected to the french council of universities (CNU), in the computer science section, a council that delivers career advancement to associate and full professors, scientific awards, and the ability to apply for a professor position In 2020, I was nominated as a junior member at the prestigious Institut Universitaire de France for five years, during which I have a reduced teaching load to focus on research. In 2022 I was promoted to full professor. Along with this promotion, I changed from the telecommunication teaching department to the computer-science one. In 2021, I became the head of the Systems and Data department, one of the five research departments of the LaBRI.

# 1.5 Highlights

- Most influential paper award for GumTree at ASE 2024 \*
- Promoted to full professor (2022)
- Junior member of the Institut Universitaire de France (2020 2025)
- Best paper award of ICSE 2022 NIER track (2022)

- French scientific award (PEDR) 2018
- French scientific award (PEDR) 2014
- 2nd most cited article in the ASE  $\stackrel{\star}{\sim}$  conference between 2014 and 2018
- 6th most cited article in the JSEP journal between 2014 and 2018
- 4th most cited article in the MoDELS conference between 2008 and 2012

# 1.6 Administrative responsabilities

- Elected member of the french national council of universities, computer science section (2015-2019)
- Member of the LaBRI research board (since 2015)
- Member of the LaBRI research lead board (since 2021)
- Member of the LaBRI board (2013-2015)
- Elected member of Enseirb-Matmeca research board (2012-2021)

# 2 Research

# 2.1 Summary

During my Ph.D. (2006-2009), I worked on model-driven engineering. I created one of the first approaches to computing similarities between two UML class models targeting the same domain. The article describing the approach [C36] was the 4th most cited article in the best model-driven engineering conference, MoDELS, between 2008 and 2012.

During my post-doc, I started to work on software evolution. I am one of the first researchers to create a mainstream approach that performs syntactic diffs of a software system's code. I have implemented this approach in the famous GumTree tool, and the article describing the approach was published at the flagship ASE conference. It is the 2nd most-cited paper of the conference between 2014 and 2018.

I successfully applied syntactic diffing in a wide range of software evolution scenarios (automatic extraction of expertise, gamification of software engineering activities, and analysis of changes in third-party libraries).

Since 2019, I have started a research activity on the topic of "Software Engineering Education", aiming at reflecting on the best ways to teach this difficult concept to students. Since then, I published several articles on this subject, most notably at the ICSE conference (in the SEET track) [C8].

# 2.2 Detailed description

A software system's life cycle is composed of several successive phases. First, the initial version is released. Then, the system goes through a phase of active evolution where it is changed in response to new user needs or hardware evolution. Finally, it goes through servicing (only critical changes are performed) and phaseout (the system is used but no longer maintained). It has been shown in various empirical studies that the active evolution phase is the most expensive one. It generally accounts for between 60% and 80% of the total cost. Therefore, this phase has been a hot topic in the software engineering research field, named software evolution.

One crucial aspect when working with a changing software system is understanding what has changed between versions. This issue is tackled daily by software developers by using the very famous *diff* tool or one of its variants. The results of diff are then used in a wide range of software evolution tasks, such as a code review or inspecting suspect code after a regression.

The diff tool and its variants are all based on the textual evolution of the source code. It models the code as a sequence of text lines, and it computes a solution to the problem of finding the shortest sequence of actions that transform the old code to the new code, the actions being inserting or deleing a given line. While being very versatile (since it is not aware of the syntax it works with all programming languages), this approach has several important drawbacks. Firstly, it can produce results not aligned with the code syntax which can be very hard to interpret. For instance, a sequence of lines can be inserted by starting in the middle of a function and ending in the middle of another one, which does not make sense at all for a developer. Lastly, the considered actions are crude, and many relevant actions are not even considered. For instance, many refactorings (that are very famous code transformations) involve moving code around or renaming identifiers. These modifications are displayed to the developers as a combination of line insertions and deletions that are harder to interpret.

In my previous work, I developed one of the first mainstream approaches going beyond textual diffing: *syntactic diffing*. This approach resolves the previously described issues as it produces results that respect the syntax boundaries and include most of the typical edit actions performed by the developers. The idea is to model the code as a labeled tree, very similar to an abstract syntax

tree, and compute a sequence of actions. The computed actions include inserting or deleting a node and moving a whole subtree, or renaming a node. However, when combining such a rich code and action representation model, the problem of finding one shortest sequence transforming the old code to the new code is NP-hard. Fortunately, developers do not care if the returned sequence of actions is the shortest one or not. They only want a sequence of actions that makes sense and allows her to understand the changes. To that extent, I created a heuristic that can compute short sequences and, more importantly, accurately represents the developer's intention behind the changes. All this work led to the publication of the reference article Fine-grained and accurate source code differencing in the ASE conference. It has been the 2nd most cited article in this conference between 2014 and 2018. Additionally, I released the GumTree tool that implements my approach, and it has become a famous tool in the software evolution community. It is currently used in several research teams around the world.

#### 2.3 **Publications**

In my list of publications, I indicate with a 🚖 all venues that: 1) are ranked A or A\* in the Australian Ranking of ICT Conferences ranking or 2) belong to the top 20 software systems venues as ranked by Google Scholar. This ranking is indicated at the date of acceptance of the article. Some of my publications have received distinguished paper awards or have been selected for being extended in a journal version. This is indicated by the presence of . The publications related to computer science education are indicated by the presence of a 🎓. Finally, the publications for which the text is available online are indicated by a clickable 📘.

> H-index: 23 39 I10 index: Book chapters: 1 *International journals:* 17 International conferences: 39 Total citations: 2345 92 Co-authors:

# **Book chapters**

[L1] Xavier Dolques, Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut, Mohammed Amine Rouane-Hacène, Petko Valtchev Refactoring de modèles

Evolution et Maintenance des Systèmes Logiciels, Chapitre 7, Hermes-Science, Avril 2014.

## **International journals**

[J1] Benjamin Danglot, Jean-Rémy Falleri, Romain Rouvoy: Can We Spot Energy Regressions using Developers Tests? Accepted for publication in Empirical Software Engineering  $\uparrow$ .

[J2] Théo Zimmermann, Jean-Rémy Falleri

A grounded theory of community package maintenance organizations Empirical Software Engineering  $\uparrow$ , volume 28, 2023.

[J3] Matias Martinez, Jean-Rémy Falleri, Martin Monperrus

Hyperparameter Optimization for AST Differencing

IEEE Transactions on Software Engineering 🌟, volume 49, number 10, pages 4814-4828, 2023.

[J4] Simon Larsen, Jean-Rémy Falleri, Benoit Baudry, Martin Monperrus

Spork: Structured Merge for Java with Formatting Preservation IEEE Transactions on Software Engineering 🚖, volume 49, number 1, pages 64-83, 2023.

[J5] Raul Medeiros and Jabier Martinez and Oscar Díaz and Jean-Rémy Falleri

Visualizations for the evolution of Variant-Rich Systems: A systematic mapping study Information and Software Technology  $\uparrow$ , volume 154, 2023.

[J6] Julien Leveau, Xavier Blanc, Laurent Réveillère, Jean-Rémy Falleri, Romain Rouvoy Fostering the Diversity of Exploratory Testing in Web Applications Software Testing, Verification and Reliability, volume 32, 2022.

[J7] Rafal Wlodarski, Aneta Poniszewska-Maranda, Jean-Rémy Falleri

Impact of software development processes on the outcomes of student computing projects: a tale of two universities 🎓 📘 Information and Software Technology,  $\uparrow$ , volume 164, 2022.



[J8] Lina Ochoa, Thomas Degueule, Jean-Rémy Falleri, Jurgen Vinju Breaking Bad? Semantic Versioning and Impact of Breaking Changes in Maven Central Empirical Software Engineering  $\uparrow$ , volume 27, 2022. [J9] Matthieu Foucault, Xavier Blanc, Jean-Rémy Falleri, Margaret-Anne Storey  $\overline{\text{Fostering Good C}}$ oding Practices through Individual Feedback and Gamification: an Industrial Case Study Empirical Software Engineering  $\uparrow$ , volume 24, number 6, pages 3731-3754, 2019 [J10] Nour Aboud, Gabriela Arévalo, Olivier Bendavid, Jean-Rémy Falleri, Nicolas Haderer, Marianne Huchard, Chouki Tibermacine, Christelle Urtado, Sylvain Vauttier Building Hierarchical Component Directories Journal of Object Technologies, volume 18, number 1, pages 1-37, 2019 [J11] Alan Charpentier, Jean-Rémy Falleri, Floréal Morandat, Elyas Ben Hadj Yahia, Laurent Réveillère Raters' Reliability in Clone Benchmarks Construction Empirical Software Engineering  $\uparrow$ , volume 22, pages 235-258, 2017. [J12] Matthieu Foucault, Cédric Teyton, David Lo, Xavier Blanc, Jean-Rémy Falleri On the Usefulness of Ownership Metrics in Open-Source Software Projects Information and Software Technology  $\uparrow$ , volume 64, pages 102-112, 2015. [J13] Cédric Teyton, Marc Palyart, Jean-Rémy Falleri, Xavier Blanc A Study of Library Migration in Java Journal of Software Evolution and Process, volume 26, pages 1030–1052, 2014. 6ème article le plus cité du journal JSEP entre 2014 et 2018. [J14] Stéphane Ducasse, Hani Habdeen, Damien Pollet, Ilham Allaoui, Jean-Rémy Falleri The Package Blueprint: visually analyzing and quantifying packages dependencies Science of Computer Programming  $\uparrow$ , volume 89, pages 298-319, 2014. [J15] Jean-Rémy Falleri, Xavier Blanc, Reda Bendraou, Marcos Aurélio Almeida da Silva, Cédric Teyton Incremental inconsistencies detection with low memory overhead Software Practice and Experience  $\uparrow$ , volume 44, number 5, pages 621-641, 2014 [J16] Jannik Laval, Jean-Rémy Falleri, Philippe Vismara, Stéphane Ducasse Efficient Retrieval and Ranking of Undesired Package Cycles in Large Software Systems Journal of Object Technologies, volume 11, number 1, pages 1-24, 2012. [J17] Jannik Laval, Simon Denier, Stéphane Ducasse, Jean-Rémy Falleri Supporting Simultaneous Versions For Software Evolution Assessment Science of Computer Programming  $\uparrow$ , volume 76, pages 1177-1193, 2011. **International conferences** [C1] Jean-Rémy Falleri, Matias Martinez Fine-grained, accurate and scalable source differencing Proceedings of ICSE 2024  $\stackrel{\bullet}{\uparrow}$ . [C2] Corentin Latappy, Thomas Degueule, Jean-Rémy Falleri, Romain Robbes, Xavier Blanc, Cédric Teyton What the Fix? A Study of ASAT Rules Documentation Proceedings of ICPC 2024  $\stackrel{\bullet}{\uparrow}$ . [C3] Gustave Monce, Thomas Couturou, Yasmine Hamdaoui, Thomas Degueule, Jean-Rémy Falleri Lightweight Syntactic API Usage Analysis with UCov Proceedings of ICPC 2024  $\uparrow$ . [C4] Ana de Almeida Borges, Annalí Casanueva Artís, Jean-Rémy Falleri, Emilio Jesús Gallego Arias, Érik Martin-Dorel, Karl Palmskog, Alexander Serebrenik, Théo Zimmermann Lessons for Interactive Theorem Proving Researchers from a Survey of Coq Users Proceedings of ITP 2023  $\uparrow$ , pages 1-18, 2023. [C5] Christophe Casseau, Jean-Rémy Falleri, Thomas Degueule, Xavier Blanc MOON: Assisting Students in Completing Educational Notebook Scenarios 🎓 📘 Proceedings of VL/HCC 2023, pages 157-167, 2023.



[C22] Jean-Rémy Falleri, Eric Grivel, Laurent Réveillère What can industrial partnerships bring in to small-group projects to teach signal and image processing? Proceedings of the 23rd EUSIPCO conference, 2015. [C23] Jean-Rémy Falleri, Floréal Morandat, Xavier Blanc, Matias Martinez, Martin Monperrus Fine-grained and accurate source code differencing Proceedings of ASE 2014  $\uparrow$ , pages 313-324. 2ème article le plus cité de la conférence ASE entre 2014 et 2018. [C24] Cédric Teyton, Marc Palyart, Jean-Rémy Falleri, Floréal Morandat, Xavier Blanc Automatic Extraction of Developer Expertise 📘 Proceedings of EASE 2014  $\stackrel{\bullet}{\uparrow}$ . [C25] Matthieu Foucault, Jean-Rémy Falleri, Xavier Blanc Code Ownership in Open-Source Software 🤎 📘 Proceedings of EASE 2014  $\uparrow$ . [C26] Matthieu Foucault, Marc Palyart, Jean-Rémy Falleri, Xavier Blanc Computing Contextual Metric Thresholds Proceedings of SAC 2014, pages 1120-1125. [C27] Cédric Teyton, Jean-Rémy Falleri, Floréal Morandat, Xavier Blanc Find your library experts Proceedings of WCRE 2013, pages 202-211. [C28] Cédric Teyton, Jean-Rémy Falleri, Xavier Blanc Automatic discovery of function mappings between similar libraries Proceedings of WCRE 2013, pages 192-201. [C29] Cédric Teyton, Jean-Rémy Falleri, Xavier Blanc Mining Library Migration Graphs 🤎 📘 Proceedings of WCRE 2012, pages 289-298. [C30] Jean-Rémy Falleri, Simon Denier, Jannik Laval, Philippe Vismara, Stéphane Ducasse Efficient Retrieval and Ranking of Undesired Package Cycles in Large Software Systems 🤎 📘 Proceedings of TOOLS 2011, pages 260-265. [C31] Xavier Dolques, Aymen Dogui, Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut, François Pfister Easing Model Transformation Learning with Automatically Aligned Examples Proceedings of ECMFA 2011, pages 189-204. [C32] Zeina Azmeh, Jean-Rémy Falleri, Marianne Huchard, Chouki Tibermacine Automatic Web Service Tagging Using Machine Learning and WordNet Synsets WEBIST Selected Papers, Lecture Notes in Business Information Processing, 2010, Volume 75, pages 46-59. [C33] Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut, Mathieu Lafourcade, Violaine Prince, Michel Dao Automatic Extraction of a WordNet-like Identifier Network from Software Proceedings of ICPC 2010, pages 4-13. [C34] Jean-Rémy Falleri, Zeina Azmeh, Marianne Huchard, Chouki Tibermacine Automatic Tag Identification In Web Service Descriptions 🧡 📘 Proceedings of WEBIST 2010, pages 40-47. [C35] Nour Aboud, Gabriela Arevalo, Jean-Rémy Falleri, Marianne Huchard, Chouki Tibermacine, Christelle Urtado, Sylvain Vaut-Automated Architectural Component Classification Using Concept Lattices Proceedings of WICSA 2009  $\uparrow$ , pages 21-30. [C36] Jean-Rémy Falleri, Marianne Huchard, Mathieu Lafourcade, Clémentine Nebut Metamodel Matching for Automatic Model Transformation Generation Proceedings of MODELS 2008  $\uparrow$ , pages 326-340. 4ème article le plus cité de la conférence MoDELS entre 2008 et 2012.

[C37] Xavier Dolques, Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut

A model-driven engineering based RCA process for bi-level models elements / meta-elements. Application to description logics Proceedings of CLA 2008.

[C38] Jean-Rémy Falleri, Gabriela Arévalo, Marianne Huchard, Clémentine Nebut

*Use of Model Driven Engineering in Building Generic FCA/RCA Tools* Proceedings of CLA 2007.

[C39] Gabriela Arévalo, Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut

Building Abstractions in Class Models: Model Transformations coupled with Formal Concept Analysis Proceedings of MODELS 2006 2006, pages 513-527.

#### International conferences, short articles

[O1] Christophe Casseau, Jean-Rémy Falleri, Xavier Blanc, Thomas Degueule

Immediate Feedback for Students to Solve Notebook Reproducibility Problems in the Classroom Proceedings of VL/HCC 2021 **★** 

[O2] Hanyang Cao, Jean-Rémy Falleri, Xavier Blanc

Automated Generation of REST API Specification from Plain HTML Documentation Proceedings of ICSOC 2017 ★, pages 453-461

[O3] Mohamed A. Oumaziz, Abdelkarim Belkhir, Tristan Vacher, Eric Beaudry, Xavier Blanc, **Jean-Rémy Falleri**, Naouel Moha Empirical Study on REST APIs Usage in Android Mobile Applications

Proceedings of ICSOC 2017 <del>\( \chi\_{\chi} \)</del>, pages 614-622

[O4] Jean-Rémy Falleri, Gabriela Arévalo, Marianne Huchard, Clémentine Nebut

A generic approach for class model normalization

Proceedings of ASE 2008  $\uparrow$ , pages 431-434.

#### **International workshops**

[O5] Tegawendé F Bissyandé, Laurent Réveillère, Jean-Rémy Falleri, Yérom-David Bromberg

Typhoon: a middleware for epidemic propagation of software updates

Proceedings of the Third International Workshop on Middleware for Pervasive Mobile and Embedded Computing, 2012 (Middleware 2012)

[O6] Jean-Rémy Falleri, Violaine Prince, Mathieu Lafourcade, Michel Dao, Marianne Huchard, Clémentine Nebut

Using Natural Language to Improve the Generation of Model Transformation in Software Design

Proceedings of the Computational Linguistics Applications Workshop, 2009 (IMCSIT 2009).

[O7] Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut

Empirical comparison of two class model normalization techniques Obstacles and questions Proceedings of the ESMDE Workshop, 2008 (MODELS 2008).

[08] Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut

Towards a traceability framework for model transformations in Kermeta

Proceedings of the ECMDA Traceability Workshop, 2006 (ECMDA-FA 2006).

## National conferences, long articles

[O9] Bastien Amar, Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut, Hervé Leblanc

Un framework de traçabilité pour des transformations à caractère impératif

Proceedings of the LMO Conference, 2008.

[O10] Xavier Dolques, Jean-Rémy Falleri, Marianne Huchard, Clémentine Nebut

Adaptation d'un processus de construction d'abstractions basé IDM à des modèles bi-niveaux éléments / méta-éléments. Application aux logiques de description

Proceedings of the LMO Conference, 2008.

#### **Thesis**

#### [O11] Jean-Rémy Falleri

Source Code Differencing for Software Evolution Research Habilitation à Diriger des Recherches, Université de Bordeaux, soutenue le 9 décembre 2015.

## [O12] Jean-Rémy Falleri

Contributions à l'Ingénierie Dirigée par les Modèles: reconstruction et alignement de modèles de classes Thèse de doctorat, Université Montpellier 2, soutenue le 28 octobre 2009.

## [O13] Jean-Rémy Falleri

*Normalisation de modèles de classes* Thèse de Master 2, Université Montpellier 2, 2006.

# Other publications

# [O14] Xavier Blanc, Jean-Rémy Falleri

*Internet Software Evolution with VPraxis* ERCIM News, 2012, volume 88.

# 2.4 Student supervision

#### 2.4.1 PhD students

## Nicolas Hubner

• Date: since 2023 (ongoing)

• Amount of supervision: 50% (with Raluca Uricaru)

• Subject: Build logs differencing

#### **Gustave Monce**

• Date: since 2022 (ongoing)

• Amount of supervision: 50% (with Thomas Degueule)

• Subject: Behavioral breaking changes

• Results: 1 article

# **Corentin Latappy**

• Date: 2021 - 2024 (defended the 19/06/2024)

• Amount of supervision: 50% (with Thomas Degueule)

• Subject: From code-review to the linter

• Results: 1 article

Next situation: post-doc researcher at the LaBRI

# **Christophe Casseau**

• Date: 2019 - 2024 (defended the 20/06/2024)

• Amount of supervision: 33% (with Xavier Blanc and Thomas Degueule))

• Subject: Good coding practices for Jupyter Notebooks

• Results: 2 articles

• Next situation: teaching professor at the University of Bordeaux

#### Rafal Wlodarski

- Date: since 2018 (defended the 12/04/2022)
- Amount of supervision: 20% (with Aneta Poniszewska-Maranda)
- Subject: Comparing software processes in academic programming projects
- Results: 3 articles
- Next situation: teaching professor at CMU

#### **Mohamed Ameziane Oumaziz**

- Date: 2016 2020 (defended the 27/01/2020)
- Amount of supervision: 80% (avec Xavier Blanc)
- Jury: Mireille Blay, Tom Mens, Jean-Philippe Domenger, Anne Etien, Tewfik Ziadi
- Subject: Cloning beyond source code: a study of the practices in API documentation and infrastructure as code
- Results: 3 articles
- Next situation: developer

## **Alan Charpentier**

- Date: 2013 2016 (defended the 17/10/2016)
- Amount of supervision: 50% (with Laurent Réveillère)
- Subject: Contributions to the use of clone detection tools for software maintenance tasks
- Jury: Julia Lawall, Tom Mens, Guillaume Blin, Martin Monperrus
- Results: 4 articles
- Next situation: developer

#### **Matthieu Foucault**

- Date: 2012 2015 (defended the 30/11/2015)
- Amount of supervision: 50% (with Xavier Blanc)
- Subject: OSS developers organisation and software quality
- Jury: Stéphane Ducasse, Marianne Huchard, Guy Mélançon, Benoît Baudry
- Results: 4 article
- Next situation: post-doc researcher at the University of Victoria (with Margaret-Anne Storey)

## **Cédric Teyton**

- Date: 2011 2014 (defended the 26/09/2014)
- Amount of supervision: 50% (avec Xavier Blanc)
- Subject: Third-party libraries management in a software maintenance context
- Jury: Roberto Di Cosmo, Laurence Duchien, Tom Mens, François Pellegrini
- Results: 7 articles
- Next situation: the creation of a start-up on software quality

#### 2.4.2 Post-doc researchers

# **Marc Palyart**

- Date: 2012 2013
- Amount of supervision: 50% (avec Xavier Blanc)
- Results: 4 articles
- Next situation: post-doc researcher at the University of British Columbia (with Gail Murphy)

## **Amine Raji**

- Date: 2011 2012
- Amount of supervision: 50% (avec Xavier Blanc)
- Next situation: civil service in Algeria

#### Jannik Laval

- Date: 2011 2012
- Amount of supervision: 50% (avec Xavier Blanc)
- Results: 3 articles
- Next situation: associate professor at Université Lyon 2

#### 2.4.3 Master students

- Nicolas Hubner (2023)
- Thomas Couturoux (2023)
- Nicolas Hubner (2023)
- Gustave Monce (2022)
- Zahra Carn (2021)
- Mohamed Ameziane Oumaziz (2016)
- Pierre Chanson (2014)
- David Fernandez (2014)
- Alan Charpentier (2013)
- Eloi Rivard (2012)
- Cédric Teyton (2011)
- Mohammed Hilia (2008)
- Jimmy Lauret (2008)
- Lala Hakik (2008)
- Bastien Amar (2007)
- Xavier Dolques (2007)

# 2.5 Research projects

# 2.5.1 Principal investigator

### **SemDiff**

• Type: University of Bordeaux

Amount: 85 200 €Date: 2016 - 2018

• Partners: LaBRI

• Role: principal investigator

# **EvoLog**

• Type : Région Aquitaine

Amount: 98 000 €Date: 2012 - 2015

• Partenaires : LaBRI

• Role: principal investigator

# 2.5.2 Workpackage or local leader

# **Labcom Parcoursup**

• Type: Ministry

• Date: 2022 - 2023

• Partners: LaBRI, SCN Parcoursup, Laboratoire DCS

• Role: work package leader

# Parcoursup's certification

• Type: Ministry

Amount: 45 000 €Date: 2020 - 2021

• Partners: LaBRI and Ministry

• Role: work package leader

#### Wizard

• Type: Industrial

Amount: 30 000 €Date: 2020 - 2022

• Partners: LaBRI, CATIE and IDAIA Group

• Role: leader for the LaBRI

# 2.5.3 Participant

#### **EvoClones**

• Type: University of Bordeaux

• Amount: 85 200 €

• Date: 2013 - 2016

• Partners: LaBRI

• Role: participant

#### Merlion

• Type: French embassy and Singapore

• Date: 2012 - 2013

• Partners: LaBRI, Inria and Singapore Management University

• Role: participant

#### Macchiato

• Type: Projet FUI R&D

• Amount: 196 000 €

• Date: 2010 - 2013

• Partners: Inria, LaBRI, Auchan and Webpulser

• Role: participant

#### FT-IDM

• Type: Industrial contract

• Date: 2006 - 2009

• Partners: LIRMM and Orange Labs

• Role: participant

# 2.6 Service

#### Animation

- PC chair of the French conference CIEL 2017
- Co-head of a national working group on empirical software engineering GDR-GPL (2014 2020)
- Head of the systems and data research department of the LaBRI: around 25 permanent researchers (since 2021)
- Head of the software engineering research group of the LaBRI: 6 permanent researchers and 6 Ph.D. students (since 2015-2021)
- Member of the organization committee of GDR-GPL 2015
- Member of the organization committee of EuroSys 2015 \*
- Member of the organization committee of Middleware 2014 \*\*

#### Conferences

- Program committee member of ICSME \( \frac{1}{2} : 2022, 2018, 2014, 2013 \)
- Program committee member of SANER  $\uparrow$ : 2015, 2015 (session ERA)
- Program committee member of ICPC  $\uparrow$ : 2019 (negative results track)
- Program committee member of ICSOFT: 2018, 2017, 2016, 2015, 2014
- Program committee member of SCAM: 2015
- Program committee member of CIEL 2021

#### **Journals**

- Reviewer for the journal Empirical Software Engineering
- Reviewer for the journal Automated Software Engineering
- Reviewer for the journal IEEE Transaction of Software Engineering \*
- Reviewer for the journal Journal of Software Evolution and Process
- Reviewer for the journal Journal of Systems and Software 🜟
- Reviewer for the journal Science of Computer Programming \*\*
- Reviewer for the journal Information and Software Technology
- Reviewer for the journal SoSyM \*
- Reviewer for the journal Journal of Object Technology

#### Jurys and expertise

- Member of the national best GDR-GPL's Ph.D. committee: 2022
- Expert for the "Crédit Impôt Recherche", which reviews tax deductions given to companies in exchange for research and development activities (since 2019)
- Expert for the committee that gives funding to newly established professors in Quebec: 2018 and 2019
- Expert for the french ANRT agency that gives funding to Ph.D. jointly done by a laboratory and a private company
- Member of a recruiting committee for an associate professor position: Univ. Lille 1 (2012), IUT Bordeaux (2012), IUT Bordeaux (2021)
- Expert for the national research funding agency ANR (2012)

## Ph.D. Jurys

#### Reviewer

- Reviewer of the Ph.D. of Gwendal Jouneaux (Université de Rennes 2, supervised by Benoit Combemale and Olivier Barais),
   2024
- Reviewer of the Ph.D. of Ward Muylaert (Vrije Universiteit Brussel, supervised by Coen de Roover), 2024
- Reviewer of the Ph.D. of Nour Agouf (Université de Lille, supervised by Anne Etien and Stéphane Ducasse), 2023
- Reviewer of the Ph.D. of Fabien Coulon (Université de Rennes 2, supervised by Benoit Combemale and Olivier Barais), 2022
- Reviewer of the Ph.D. of Benoit Verhaeghe (Université de Lille, supervised by Anne Etien and Nicolas Anquetil), 2021

- Reviewer of the Ph.D. of Zeinab Abou Khalil (Université de Lille and Université de Mons, supervised by Laurence Duchien and Tom Mens), 2021
- Reviewer of the Ph.D. of Théo Zimmermann (Université Paris, supervised by Hugo Herbelin and Yann Régis-Gianas), 2019
- Reviewer of the Ph.D. of Vincenzo Musco (Université Lille 3, supervised by Philippe Preux and Martin Monperrus), 2016
- Reviewer of the Ph.D. of Geoffrey Hecht (Université Lille 1, supervised by Naouel Moha and Romain Rouvoy), 2016

#### **Examiner**

- Examiner of the Ph.D. of Romain Lecoq (Université de Caen, supervised by Paul Dorbec), 2024
- Examiner of the Ph.D. of Florent Moriconi (Eurecom, supervised by Aurélien Francillon), 2024
- Examiner of the Ph.D. of Quentin Le Dilavrec (Université Rennes 1, supervised by Arnaud Blouin and Jean-Marc Jezequel),
   2024
- Examiner of the Ph.D. of Lucas Serrano (Sorbonne Universités, supervised by Julia Lawall), 2020
- Examiner of the Ph.D. of Manuel Leduc (Université Rennes 1, supervised by Benoît Combemale and Olivier Barais), 2019

#### 2.7 Tools

#### **GumTree**

- Role: creator and maintainer
- around 600 GitHub stars and 150 forks
- License: GNU Lesser General Public License v3.0
- Description: A syntactic diff tool.

#### Roseau

- Role: contributor
- License: MIT
- Description: Java API breaking change detector.

#### **Diggit**

- Role: creator and maintainer
- License: GNU Lesser General Public License v3.0
- Description: an agile git repository mining framework.

# **Harmony**

- Role: creator and maintainer
- License: Public Domain
- Description: an agile repository mining framework.

#### Galatea

- · Role: creator and maintainer
- License: Apache License 2.0
- Description: a library to perform relational concept analysis in using the Eclipse ecosystem.

# **Popsycle**

- Role: creator and maintainer
- License: GNU Lesser General Public License v3.0
- Description: a tool that scans and detects suspect cycles among the packages of a software system.

#### Gumm

- Role: creator and maintainer
- License: Public Domain
- Description: a tool that computes the similarities between the elements of two class models.

# **MOOSE**

- Role: contributor
- License: BSD License
- Description: a reverse engineering framework.