

## 1. Name in full

Sébastien MOSSER

## 2. Business addresses

- **Mailing address:**
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## 3. Educational background

- 2011 Postdoc, Software engineering, *Inria Lille-Nord Europe*, France
- 2010 Ph.D., Computer Science, *Université Nice – Sophia Antipolis*, France
- 2007 Engineer degree, *École Polytechnique Universitaire de l'Université de Nice*, France
  - Equivalent to a M.Sc. in Software Engineering with additional B.Eng. courses.
- 2004 *Diplôme d'Études Universitaires Générales*, *Université de Nice – Sophia Antipolis*, France
  - Two-years post-secondary degree, with specialization in mathematics and computer science.

## 4. Current Status at McMaster

N/A

## 5. Professional Organizations

- 2021 Application process started for a P.Eng. license (*Ordre des Ingénieurs du Québec*)

## 6. Employment History

### a) Academic

- **01/19 – present**                      **Professeur – cat. III**                      (*~Associate Professor*)
  - Université du Québec à Montréal (UQAM)
  - Computer science department, Montréal, Canada
- **09/12 – 12/18**                      **Maître de Conférences**                      (*~Assistant then Associate Professor*)
  - École Polytechnique Universitaire de l'Université Côte d'Azur (Polytech Sophia, UCA).
  - Computer science department, Sophia-Antipolis, France
- **09/11 – 09/12**                      **Research Scientist (permanent)**
  - *Stiftelsen for Industriell og TEknisk Forskning IKT* (SINTEF Digital)

- Department of Networking and Distributed Systems (NSS), Oslo, Norway
- **11/10 – 09/11**                      **Postdoctoral Fellow (Inria)**
  - Institut National de la Recherche en Informatique et Automatique (Inria)
  - Distributed systems and middleware, Project-team ADAM, Lille, France
- **09/07 – 09/10**                      **Ph.D. Fellow (Ministère de l'enseignement supérieur)**
  - Université de Nice – Sophia Antipolis, France
  - Doctoral School for Information Technology and Communications
  - *This fellowship is three-year fixed term contract awarded after a competitive admission process at the University level (rank: 1).*
- **09/07 – 09/10**                      **Moniteur de l'enseignement supérieur**
  - École Polytechnique Universitaire de l'Université de Nice (Polytech Sophia)
  - Computer science department, Sophia-Antipolis, France
  - *Moniteurs are hired after a competitive admission process for a three-years fixed term contract. It includes teaching assistant duties, and a mentoring/training program to prepare for assistant professor positions after the completion of the Ph.D.*

## b) Consultations

N/A

## c) Other

N/A

# 7. Scholarly and Professional Activities

*Note: Sections labeled with a \* are not part of McMaster standardized CV template but were added to reflect the specificities of the research field, which intensively relies on conferences as major publication venues.*

## a) Editorial boards

N/A

## b) Grant & Personnel committees

- 2021 – 2023    NSERC Discovery grant (Computer Science, 1507) committee. *(To be announced)*
- 2020            Computer Science department (UQAM), Hiring Committee. *Elected.*
- 2020 – 2022    *Fond de Recherche Québécois – Nature et Technologie* (FRQNT). Ph.D. grants committee.
- 2020            NSERC Undergraduate Student Research Awards (USRA). UQAM internal committee.
- 2019            NSERC Undergraduate Student Research Awards (USRA). UQAM internal committee.
- 2016 – 2018    *Comité Permanent aux Ressources Humaines en Informatique* (UCA). *Elected.*
  - This committee oversaw the recruitment strategy at *Université Côte d'Azur*, defining and ranking jobs' profiles at the university level for computer science and software engineering faculty positions.

## c) Executive positions

- 2008 – 2010    Steering committee, Action IDM (French national research consortium dedicated to Model-driven Engineering). Student member.

## d) Journal referee

- |   |          |              |
|---|----------|--------------|
| • Software and System Modelling (SoSyM) | Springer | (27 reviews) |
| • Journal of Object Technology (JOT)    | AITO     | (2 reviews)  |
| • Transactions on Cloud Computing (TCC) | IEEE     | (2 reviews)  |

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• Journal of Computer Languages (COLA)	Elsevier	(1 review)
• Journal of the Internet of Things (IoT)	IEEE	(1 review)
• Journal of Systems and Software (JSS)	Elsevier	(1 review)
• Software Quality Journal (SQJ)	Springer	(1 review)
• Empirical Software Engineering (ESE)	Springer	(1 review)

#### e) External grant reviews

- 2020 *Agence Nationale de la Recherche* (ANR, France). Early Career Research project.
- 2020 *Institut Mines-Telecom Atlantique* (IMT, France). Research Team creation.
- 2017 *NSERC*. Discovery grant (1507).
- 2011 *Agence Nationale de la Recherche* (ANR, France). Industrial Transfer Project.

#### f) Conference Organization Committees\*

- 2022 25<sup>rd</sup> ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (MODELS). *Virtual/local chair and Student Volunteers chair*. Montréal, Canada
- 2021 *École des Jeunes Chercheuses et Jeune Chercheurs en Programmation* (EJCP, National summer school for Ph.D. students in soft. eng. & prog. languages). *Organization Committee*. Virtual.
- 2020 23<sup>rd</sup> ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (MODELS). *Virtualization chair and Student Volunteers chair*. Virtual
- 2019 41<sup>st</sup> ACM/IEEE International Conference on Software Engineering. *Accommodation chair*. Montréal, Canada.
- 2015 14<sup>th</sup> ACM International Conference on MODULARITY. *Social Media chair*. Fort Collins, CO, USA.
- 2014 8th International Workshop on Variability Modelling of Software-intensive Systems (VaMoS). *Organization committee*. Nice, France.
- 2012 3<sup>rd</sup> IEEE World Congress on SERVICES. *Career development chair*. Honolulu, Hawaii, USA.
- 2011 3<sup>ème</sup> journées nationales du GdR GPL (National conf.). *Organization committee*. Lille, France

#### g) Conference Program Committees\*

- 2021 43<sup>rd</sup> ACM/IEEE International Conference on Software Engineering (ICSE). *Artefact evaluation track*.
- 2021 24<sup>th</sup> ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (MODELS). *Foundation track & Educator Symposium track*.
- 2020 24<sup>th</sup> ACM International Systems and Software Product Line Conference (SPLC). *Research track*.
- 2020 23<sup>rd</sup> ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (MODELS). *Doctoral symposium track*.
- 2019 13<sup>th</sup> IEEE International Conference on Research Challenges in Information Science (RCIS). *Doctoral Symposium track*.
- 2019 7<sup>th</sup> International Conference on Model-Driven Engineering and Software Development (MODELSWARD). *Research track*.
- 2015-... IEEE International Conference on Big Data (BigData). *Research track*.
- 2013-... IEEE International Conference on Web Services (ICWS). *Research track*.

#### h) Workshop Organization & Program Committees\*

- 2021 1<sup>st</sup> International Workshop on Variability Management for Modern Technologies (co-located with SPLC). *Organization committee*.

- 2021 1<sup>st</sup> International workshop on MDE for Smart IoT Systems (co-located with STAF). *Organization committee.*
- 2021 1<sup>st</sup> International Workshop on Foundations and Practice of Visual Modeling (co-located with STAF). *PC member.*
- 2019-... International Workshop on DevOps modelling (co-located with Models). *Steering committee.*
- 2020 International Workshop on Software Engineering for the IoT (co-located with ICSE). *PC member.*
- 2018 International Workshop on Modeling for Microservices. *PC member.*
- 2016 2<sup>nd</sup> International Workshop on Modularity in Modelling (co-located with <Programming>). *Organization committee.*
- 2014-... International workshop on Scalable Data Management (co-located with BigData). *PC member.*
- 2014 2nd International Workshop on Model-Driven Engineering on and for the Cloud. *PC Member.*
- 2013-2014 Nordic Workshop on Cloud Computing. *PC Member.*

## 8. Areas of Interests

- **Research:**
  - Software Engineering
  - Domain-specific languages
  - Software composition at large-scale
- **Teaching:**
  - Distributed systems
  - Software Modelling & Design
  - Software construction & maintenance
- **Consulting:**
  - N/A.

## 9. Honours

- 2018 Best paper award, 33rd Symposium on Applied Computing (SAC 2018).
- 2015 – 2019 *Prime d'Encadrement Doctoral et de Recherche* (PEDR). 20 k\$
  - The “PEDR” is a distinction awarded for four years in France to the top 20% of the Associate Professors, at the national level.

## 10. Courses Taught (last five years)

*Note: Sessions impacted by the COVID-19 pandemic are underlined. The regular teaching load at UQAM and Polytech is 4 courses/year in average. ENS Lyon is a research-intensive university that invites for two years (after a competitive selection process) external professors to animate a 12-weeks course on their research topic. I am “**course coordinator**” and “**main instructor**” of all the undergraduate and graduate courses listed in this document.*

### a) Undergraduate

- INF5153 **Software Design** (UQAM, *required*)
  - Sessions: Fall 2020, Fall 2019, Winter 2019 (*new course*)
- INF600G **Designing tailored applications for the aging population** (UQAM, *elective*)
  - Sessions: Summer 2019 (*new course*)
- EIIN622 **Introduction to software Engineering** (Polytech, *required*)
  - Sessions: Winter 2018, Winter 2017
- EIIN830 **Software Architecture & DevOps** (Polytech, *elective*)

- Sessions: Winter 2018, Winter 2017
- EIIN615 **Software Development Project** (Polytech, *required*)
  - Sessions: Winter 2018, Winter 2017
- EIIN717 **Innovation project** (Polytech, *required*)
  - Sessions: Spring 2018, Spring 2017 (*new course*)

## b) Graduate

- MGL7361 **Principles of Software Design** (UQAM, *required*)
  - Sessions: Fall 2020
- MGL7460 **Software realisation & Maintenance** (UQAM, *required*)
  - Sessions: Winter 2020
- INFO5135 **Software Engineering & Compilation** (ENS Lyon, *elective*)
  - Sessions: Fall 2018, Fall 2017 (*new course*)
- EIINA905 **Micro-services architectures** (Polytech, *elective*)
  - Sessions: Fall 2018, Fall 2017, Fall 2016 (*new course*)
- EIINA903 **Domain-specific languages & Meta-modelling** (Polytech, *elective*)
  - Sessions: Fall 2018, Fall 2017, Fall 2016

## c) Postgraduate (medical)

N/A

## d) Other

- Summer 2021 MGL8707 **Capstone project** (K. Moriceau) UQAM
  - *Collecting text messages from user's phone while respecting privacy.*
- Summer 2021 INF6200 **Undergrad research project** UQAM
  - A. Lachapelle -Dagenais *Good practices in software design for the aging population*
  - S. Selaoui *Empirical evaluation of microservices co-evolution*
- Summer 2020 MGL8707 **Capstone project** (F. Vouters) UQAM
  - *Exploring Microservices architecture using Anaximander*
- Winter 2020 INF8881 **Graduate research seminar** UQAM
  - Pierre Froidevaux *Visualization dashboards to supervise students' cohorts.*
  - Rayan Lakdhar *Securing a medical data collection pipeline.*
  - Lou-Théo Laurent *A DSL to deploy scientific applications using Compute Canada.*
  - Maxime Mulder *Large-scale analysis of git-merge scenarios.*
- Winter 2020 INF6200 **Undergrad research project** (C. Pulgar) UQAM
  - *Using justification diagrams to assess ethics recommendation in software development.*
- Winter 2019 INF8881 **Graduate research seminar** UQAM
  - Paul Misericordia *An infrastructure to analyse merge scenario at large scale*
  - Dorian Haouz-Gachet *Tailored deployment of microservices.*

# 11. Contributions to teaching practice

## a) Pedagogic innovation and/or development of technology-enhanced teaching

- **INF5153 – Software Design.** To tackle the challenges of teaching software design in a COVID context, I re-designed the course into a “flipped classroom” one, starting Fall 2020. The “theoretical” part is published as openly accessible videos (creative commons license) on YouTube representing more than

11 hours of contents, using the French language. The classroom time is used to work on case studies with small groups of students. This course material is now reused by four university. Reusable material available at the following URL: <https://conception-objet.github.io/> (FR)

- **MGL7361 – Principles of Software Design.** Considering the success of the newly adapted INF5153, I received funding from the University to “flip” the graduate version of the software design course. The funding (7.5k\$) is used to support a TA who develops pieces of software illustrating the course. In addition, I gained access to the recording studio at UQAM to shoot more “professional” videos.

#### b) Leadership in delivery of educational programs

- As Associate Professor at *Université Côte d’Azur*, I oversaw the design and then implementation of a “project-based” approach for software engineering courses in the department (involving the redesign of 10 courses in the program). Following up this work, I was invited to talk at several education conferences, and I consulted in 17 different universities in France to provide feedback on this topic.

#### c) Course/curriculum development

- **INF600G – Designing tailored applications for the aging population.** This course is a collaboration between UQAM and a Human-Computer Interaction team in France (funding received from Quebec’s research agency – FRQNT). We created the course to focus on the design and then implementation of software for the aging population. Students are confronted to the multiple issues faced by senior citizens when using software, and design adaptations to tackle these issues. The course is used by three institutions (UQAM, Polytech Sophia, and IUT Nice – Côte d’Azur), and a collaboration with Toulouse (*Université Fédérale Toulouse – Midi Pyrénées*). URL: <https://ace-design.github.io/champlain/> (FR)

#### d) Development/evaluation of educational materials and programs

- **2014 – Engineering program evaluation.** As part of a “school of engineering” in France, programs need to be evaluated each 6 years by the *Commission du Titre d’Ingénieur* (CTI) at the national level. I was leading the software engineering part of the accreditation application (which was successful in the end).

#### e) Other

- I am often invited to give “invited lectures” in the context of other courses. I regularly gave interventions dedicated to empirical software engineering (UCA, UQAM), software design (Toulouse), and microservice architectures (ETS) in other programs.
- As part of *Centre National de la Recherche Scientifique* (CNRS) initiative for engineers’ continuous training, I oversaw the courses “Agile software development” and “Business process modelling” for the *DevLog* national network in 2017.

## 12. Supervisorships

	With thesis		Internships			
	Ph.D.	M.Sc.	M.Eng.	M.Sc.	B.Sc.	B.Tech.
Completed	6	5	13	3	2	2
In progress	2	2	--	--	2	--

#### a) Master

- **2021 – ...:** M.Sc. in Software Engineering, Corinne Pulgar, *Justification diagrams in a DevOps context*. Co-supervised with Francis Bordeleau (ETS).



- **2020 – ...:** M.Sc. in Computer Science, Jean-Philippe Caissy, *Reverse engineering of microservice architectures in a composable way*.
- **2017 – 2018:** M.Sc. in Software Engineering, Günther Jungblunth, Developing scalable data-processing pipelines.
- **2015 – 2016:** M.Sc. in Software Engineering, Benjamin Benni, A language-driven approach for model composition.
- **2013 – 2014:** M.Sc. in Software Engineering, Cyril Cecchinell, Code generation applied to sensor networks.
- **2012 – 2013:** M.Sc. in Software Engineering, Ivan Logre, User-centered dashboards for data collected by large-scale sensor networks.
- **2011 – 2012:** M.Sc. in Computer Science, Eirik Brandtzæg, XXX

## b) Doctoral

Note: In the French system, Assistant Professors are not allowed to supervise students on their own until they defend a habilitation thesis. I was awarded two exceptional exemptions from the President of the University for the thesis of B. Benni and I. Logre, based on my research activity and results. Students at UQAM are now co-supervised to make my departure from UQAM easier.

- **2021 - ...:** Serge Dogny-Gagnely, Ph.D. in Computer Science. *Developing data-driven applications in a composable way*. Co-supervised with Camille Coti (Université Paris-Nord, UQAM).
- **2021 - ...:** Alexandra Lapointe-Boisvert. Ph.D. in Computer Science. *Composable requirements in an agile & DevOps context*. Co-supervised with Sylvie Trudel (UQAM).
- **2017 – 2020:** Sébastien Bonnioux, Ph.D. in Earth and Universe Sciences. *Float for multidisciplinary monitoring of the marine environment. From business expertise to embedded codes*. Co-supervised with G. Nolet (UCA) and M. Blay-Fornarino (UCA).
  - S. Bonnioux started his Ph.D. in the Computer Science program in 2017 and transferred to the Earth and Universe Sciences Ph.D. program in late 2018 as the application domain was gaining more interest in his work.
- **2016 – 2019:** Benjamin Benni, Ph.D. in Computer Science. *Enabling white-box reasonings on black-box composition operators in a domain-independent way*.
- **2016 – 2019:** Sami Lazreg, Ph.D. in Computer Science. *Variability-intensive applications over highly configurable platforms: Early feasibility and optimality analysis*. Co-supervised with Philippe Collet.
- **2014 – 2017:** Cyril Cecchinell, Ph.D. in Computer Science. *DEPOSIT, an approach to model and deploy data collection policies on heterogeneous and shared sensor networks*. Co-supervised with Phillipe Collet.
- **2013 – 2017:** Ivan Logre, Ph.D. in Computer Science. *Preserving separation of concerns while integrating heterogeneous domains in software systems*
- **2010 – 2014:** Alexandre Feugas, Ph.D. in Computer Science. *An agile, reliable, and minimalist approach to preserve the quality of service of business-processes based applications during their evolutions*. Co-supervised with Laurence Duchien.

## c) Post-doctoral/Fellowships

N/A.

## d) Clinical/Professional

N/A.

## e) Supervisory committees

- 2021 Alexandre Rio (Université de Rennes, France). Ph.D in Computer Science. *External reviewer.*
  - *Optimizing renewable energy usage: a digital twin for microgrids.*
- 2021 Thibault Béziers La Fosse (Télécom Bretagne, France). Ph.D. in Comp. Science. *External reviewer.*
  - *Model-driven Method for Dynamic Analysis applied to Energy-Aware Software Engineering*
- 2019-... Dimitri Prestat (UQAM, Canada). Ph.D. in Computer Science. *Supervisory committee.*
  - *Formal detection of defaults in mobile applications.*
- 2019-... Hyacinth Ali (McGill University, Canada). Ph.D. in Software Engineering. *Supervisory committee.*
  - *Modular combination and reuse of languages with perspective*
- 2016 Thi-Mai-Anh Bui (Université Paris 6, France). Ph.D. in Computer Science. *External reviewer.*
  - *Separation of concerns in epidemiology.*

## f) Other

Note: I applied a five-years limit for this section. Student who made internships in the lab before 2016 are not listed.

- 2021 Normand Lancelot, B.Sc. internship. *Extracting emotions from a twitter corpus.*
- 2021 Amélie Lachapelle-Dagenais, B.Sc. internship. *Adapting an application to the aging population.*
- 2020 Alyson Lecuyer, B.Tech. internship. *Showcasing students' result related to the aging population.*
- 2020 Avril de Goër de Herve, M.Sc. internship. *Impact analysis of compilation passes in LLVM.*
- 2020 Jérémy Fornarino, M.Eng. internship. *Collecting mental-health data from patients' phones.*
- 2020 Yan Conigliaro, M.Eng. internship. *Mining GitHub to build a corpus of conflicting merge scenarios.*
- 2020 Olivier Levasseur, B.Sc. internship. *Heuristics to improve git-merge for Java programs.*
- 2019 Chaima Frouni, B.Sc. internship. *A form-based approach to collect data from patients.*
- 2019 Gael Miton, Military engineering internship. *A simulator for underwater floating devices.*
- 2019 Mathieu Paillard, M.Eng. internship. *A DSL to support fast prototyping of composition operators.*
- 2019 Prune Pillone, M.Eng. internship. *Adapting software for the aging population.*
- 2019 Florian Juroszek, M.Eng. internship. *Static analysis of microservice architectures.*
- 2019 Alexis Segura, M.Eng. internship. *Empirical analysis of git-merge conflicts.*
  - *Alexis received a Facebook excellence award for his academic results and the work done in this internship.*
- 2019 Sébastien Michelland, M.Sc. internship. *Identifying conflicts in the LLVM toolchain.*
- 2018 Alexis Couvreur, M.Sc. internship. *Applying Smart contracts in an IoT context.*
- 2018 Florian Lehman, M.Eng. internship. *Software composition applied to Git.*
- 2018 Olivier Boulet, M.Eng. internship. *Securing sensor data collection using blockchain.*
- 2018 Florian Bourniquel, M.Eng. internship. *Visualizing interactions among code rewriters.*
- 2018 Johan Mortara, M.Eng. Internship. *Automated deployment of blockchain infrastructures.*
- 2016 Fabien Vicente, M.Eng. internship. *Containerizing a complex architecture: the Atlassian example.*
- 2016 Nicolas Lecourtois. M.Eng. internship. *Securing communications among containers.*

## 13. Lifetime Research funding

### a) Ongoing projects

1. Y. Farmer (PI), M.-E. Bouthillier, A. Duhoux, **S. Mosser**, M.-J. Meurs. *La perception populationnelle du risque sanitaire et l'acceptabilité sociale face au déconfinement. Informer les décideurs politiques à l'aide du forage de données sur Twitter. Conseil de Recherche en Sciences Humaines (CRSH), COVID-19 emergency program.* 2021. 25k\$ (part of funding: 12.5k\$, 50%).
2. C. Messier (PI), M.-J. Meurs, J. Dupras, T. Handa, **S. Mosser**, A. Paquette, A. Smargiassi. *SylvCiT: un logiciel intelligent pour maximiser la résilience et les bienfaits des arbres municipaux face aux changements globaux.*



- Fond de Recherche Québécois – Nature et Technologie* (FRQNT). Visage Municipal program. 2021 – 2023. 140k\$ (part of funding: 35k\$, 25%).
3. **S. Mosser** (PI). A compositional approach to support developers in developing ultra-large-scale systems. National Sciences and Engineering Research Council (NSERC), Discovery grant. 2020 – 2025. 145k\$.
  4. L. Gonnord (co-PI), **S. Mosser** (co-PI). Characterisation of Program Evolution with static analysis. *Institut National de la Recherche en Informatique et Automatique* (Inria), Associated team. 2020 – 2023. 50k\$ (part of funding: 25k\$, 50%).
  5. S. Vial (PI), A.-F. Audrain-Pontevia, M.-P. Gagnon, S. Guay, **S. Mosser**, S. Vezeau. *Fonds de Recherche Québécois* (FRQ), Audace Intersectoral Program. 2021 – 2023. 100k\$ (part of funding: 20k\$, 20%).
  6. M.-J. Meurs (PI), M. Benichou, G. Bondolfi, M. Bonenfant, S. Gambs, C. Malaterre, D. Martin, F. Millerand, **S. Mosser**. RELAI: Respectful and Explainable AI to Support Struggling People and Mental Health Practitioners. New Frontiers in Research Fund (NFRF), Exploration program. 2019 – 2023. 250k\$ (part of funding: 50k\$, 20%).
  7. **S. Mosser** (PI). Faculty of Science Fixed Startup Grant, UQAM. 2019 – 2022. 15k\$.
  8. **S. Mosser** (co-PI), A.-M. Pinna-Déry (co-PI). Software engineering for the aging population. *Fond de Recherche Québécois – Nature et Technologie* (FRQNT) & *Ministère des Affaires Étrangères Français* (MAE). 40k\$ (part of funding: 20k\$, 50%).

#### b) Past projects, as PI or Co-PI

9. **S. Mosser** (PI). Formalising Scalable Composition Operators (FIASCO). *Centre National de la Recherche Scientifique* (CNRS), Research acceleration. 2018. 5k€.
10. M. Blay-Fornarino (co-PI), **S. Mosser** (co-PI), G. Nolet. Software Composition for the MERMAID. Provence - Alpes Côte d’Azur regional research fund. 2017 – 2020. 100k€.
11. P. Collet (co-PI), **S. Mosser** (co-PI). Variability in cyber-Physical Systems. Industrial Contract (company: VISTEON). 2016 – 2020. 100k€.
12. B. Benni, **S. Mosser** (PI). Modelling Software Composition. UCA School of Graduate Studies. 2016 – 2019. 100k€.
13. **S. Mosser** (PI). Modelling for Scaling. CNRS early career accelerator. 2016. 10k€.
14. C. Cecchinell, P. Collet (co-PI), **S. Mosser** (co-PI). DEPOSIT at scale. European Institute of Innovation and Technology (EIT Digital), industrial transfer program. 50k€.
15. C. Cecchinell, P. Collet (co-PI), **S. Mosser** (co-PI). Tailored composition for large-scale sensing networks. UCA School of Graduate Studies. 2014 – 2017. 100k€.
16. I. Logre, **S. Mosser** (PI). Model-based sensor data visualizations. UCA School of Graduate Studies. 2013 – 2017. 100k€.
17. M. Blay-Fornarino (co-PI), **S. Mosser** (co-PI). Domain-specific languages & Software Product Line for Cloud-computing (IDOL). European Union international cooperation research fund (EGIDE), Aurora program. 2012 – 2014. 20k€.
18. **S. Mosser** (PI). Modelling for Cloud-computing. Amazon Research Grant. 2012 – 2014. 25k€.

#### c) Past projects, as collaborator

19. L. Lizzi (PI). Internet of Things Wireless Infrastructures (I-Win). UCA Initiative of Excellence. 2018 – 2019. Role: work-package leader. 36k€ (part of funding: 5k€)
20. F. Verdier (PI). Smart IoT for mobility (Phase I). UCA Initiative of Excellence. 2018 – 2019. Role: work-package leader. 25k€ (part of funding: 5k€).
21. M. Blay-Fornarino (PI). YourCast, an a-la-carte information broadcasting system. *Agence nationale de la recherche* (ANR), Technological Transfer program. Role: technical expert. 2012 – 2014. 250k€.

22. E. di Nitto (PI). Model-driven approach for design and execution of applications on multiple clouds (MODAClouds). European Union Research Fund, Framework Program 7 (EU-FP7). Role: work-package leader (until 2012). 2011 – 2015. 8.7M€ (consortium: 12 institutions).
23. Keith Jeffery (PI). A model-based cross cloud development and deployment platform (PaaSage). European Union Research Fund, Framework Program 7 (EU-FP7). Role: work-package leader (until 2012). 2011 – 2016. 9.7M€ (consortium: 14 institutions).
24. G. Horn (PI). Reuse and Migration of legacy applications to interoperable cloud services (REMICS). European Union Research Fund, Framework Program 7 (EU-FP7). Role: technical expert (2011 – 2012). 2010 – 2013. 4.5M€ (consortium: 13 institutions).
25. A. Solberg (PI). Environmental services infrastructure with ontologies (ENVISION). European Union Research Fund, Framework Program 7 (EU-FP7). Role: technical expert (2011 – 2012). 2010 – 2013. 4.5M€ (consortium: 8 institutions)

## 14. Lifetime Publications (2007-...)

*Note: Sections labeled with a \* are not part of McMaster standardized CV template but were added to reflect the specificities of the research field, which intensively relies on conferences as major publication venues. Underlined names are students who were under my direct supervision for the work described in the publication.*

Institution	Year	Journals		Conferences		Workshops	
		International	National	International	National	International	National
UQAM	2021			1			
	2020	4		4			
	2019	3		2			
UCA	2018	2		5		5	
	2017	<i>In charge of the evaluation &amp; redesign of the software engineering curriculum at Polytech Sophia</i>					
	2016			2			
	2015			1		1	
	2014			2		3	
	2013	1		1		4	
SINTEF	2012			4	1	5	
Inria	2011			5	2	1	
U.Nice (Ph.D.)	2010	1		1	1		
	2009			1	1	1	
	2008			2	1		1
	2007		1		1	1	1
<b>Total:</b>		11	1	31	7	21	2

### a) Peer-reviewed

#### (i) Books

N/A

#### (ii) Contribution to books

N/A

#### (iii) Journal articles

- [J1] S. Bonnieux, D. Cazau, **S. Mosser**, M. Blay-Fornarino, Y. Hello, and G. Nolet. MeLa: A Programming Language for a New Multidisciplinary Oceanographic Float. *MDPI Sensors*, 2020.

- [J2] B. Benni, **S. Mosser**, M. Acher, and M. Paillart. Characterizing Black-box Composition Operators via Generated Tailored Benchmarks. *Journal of Object Technology (JOT): special issue ECMFA'20*, June 2020.
- [J3] G. Mussbacher, B. Combemale, J. Kienzle, S. Abrahão, H. Ali, N. Bencomo, M. Búr, L. Burgueño, G. Engels, P. Jeanjean, J.-M. Jézéquel, T. Kühn, **S. Mosser**, H. Sahraoui, E. Syriani, D. Varró, and M. Weyssow. Opportunities in Intelligent Modeling Assistance. *Software and Systems Modeling*, 2020.
- [J4] B. Combemale, J. Kienzle, G. Mussbacher, H. Ali, D. Amyot, M. Bagherzadeh, E. Batot, N. Bencomo, B. Benni, J.-M. Bruel, J. Cabot, B. H. C. Cheng, P. Collet, G. Engels, R. Heinrich, J.-M. Jézéquel, A. Koziolk, **S. Mosser**, R. Reussner, H. Sahraoui, R. Saini, J. Sallou, S. Stinckwich, E. Syriani, and M. Wimmer. A Hitchhiker's Guide to Model-Driven Engineering for Data-Centric Systems. *IEEE Software*, 2020.
- [J5] C. Cecchine, F. Fouquet, **S. Mosser**, and P. Collet. Leveraging live machine learning and deep sleep to support a self-adaptive efficient configuration of battery powered sensors. *Future Generation Computer Systems (FGS)*, Mar. 2019.
- [J6] B. Benni, **S. Mosser**, N. Moha, and M. Riveill. A Delta-oriented Approach to Support the Safe Reuse of Black-box Code Rewriters. *Journal of Software: Evolution and Process (JSEP), ICSR special issue*, July 2019.
- [J7] L. Burgeno, F. Ciccozzi, M. Famelis, G. Kappel, L. Lambers, **S. Mosser**, R. Paige, A. Pierantonio, A. Rensink, R. Salay, G. Taentzer, A. Vallecillo, and M. Wimmer. Contents for a Model-Based Software Engineering Body of Knowledge. *Journal of Software and Systems Modeling*, June 2019.
- [J8] S. Lazreg, P. Collet, and **S. Mosser**. Functional Feasibility Analysis of Variability-Intensive Dataflow-oriented Applications over Highly configurable Platforms. *ACM SIGAPP Applied Computing Review*, Sept. 2018.
- [J9] B. Combemale, J. Kienzle, G. Mussbacher, O. Barais, E. Bousse, W. Cazzola, P. Collet, T. Degueule, R. Heinrich, J.-M. Jézéquel, M. Leduc, T. Mayerhofer, **S. Mosser**, M. Schöttle, M. Strittmatter, and A. Wortmann. Concern-Oriented Language Development (COLD): Fostering Reuse in Language Engineering. *Computer Languages, Systems and Structures*, 2018.
- [J10] **S. Mosser** and M. Blay-Fornarino. ADORE, a Logical Meta-model Supporting Business Process Evolution. *Science of Computer Programming*, 78(8):1035 – 1054, 2013.
- [J11] **S. Mosser**, M. Blay-Fornarino, and R. France. Workflow Design using Fragment Composition (Crisis Management System Design through ADORE). *Transactions on Aspect-Oriented Software Development (TAOSD)*, Special issue on Aspect Oriented Modeling:1–34, 2010.
- [J12] M. Blay-Fornarino, V. Hourdin, C. Joffroy, S. Lavirotte, **S. Mosser**, A.-M. Pinna Déry, P. Renevier, M. Riveill, and J.-Y. Tigli. Architecture pour l'adaptation de Systèmes d'Information Interactifs Orientés Services. *Revue des Sciences et Technologies de l'Information - Série L'Objet : logiciel, bases de données, réseaux*, pages 93–118, 2007.

(iv) Research creation and artistic contributions

N/A

(v) Community engagement and knowledge exchange

N/A

(vi) Journal abstracts

N/A

(vii) Other, including Proceedings of Meetings (international conferences) \*

- [C1] **S. Mosser** and J.-M. Bruel. Requirements Engineering in the DevOps Era (tutorial). In *International Requirements Engineering Conference, RE*, Sep. 2021.

- [C2] **S. Mosser**, J.-P. Caissy, F. Juroszek, F. Vouters, and N. Moha. Charting Microservices to Support Services' Developers: the Anaximander Approach. In *International Conference on Service-Oriented Computing (ICSOC)*, short paper, Dec. 2020.
- [C3] G. Mussbacher, B. Combemale, S. Abrahão, N. Bencomo, L. Burgueño, G. Engels, J. Kienzle, T. Kühn, **S. Mosser**, H. Sahraoui, and M. Weyssow. Towards an Assessment Grid for Intelligent Modeling Assistance. In *MDE Intelligence 2020 - 2nd Workshop on Artificial Intelligence and Model-driven Engineering*, Oct. 2020.
- [C4] D. Maupomé, M. D. Armstrong, R. M. Belbahar, J. Alezot, R. Balassanio, M. Queudot, **S. Mosser**, and M.-J. Meurs. Early mental health risk assessment through writing styles, topics and neural models. In *Working Notes of CLEF 2020 - Conference and Labs of the Evaluation Forum*, 2020.
- [C5] B. Benni, **S. Mosser**, J.-P. Caissy, and Y.-G. Guéhéneuc. Can Microservice-Based Online-Retailers be Used as an SPL? In *International System and Software Product Line Conference (SPLC)*, Dec. 2020.
- [C6] S. Lazreg, M. Cordy, P. Collet, P. Heymans, and **S. Mosser**. Multifaceted Automated Analyses for Variability-Intensive Embedded Systems. In *41st ACM/IEEE International Conference on Software Engineering*, ICSE, May 2019.
- [C7] S. Bonnieux, **S. Mosser**, B.-F. Mireille, Y. Hello, and G. Nolet. Model-driven Programming of Autonomous Floats for Multidisciplinary Monitoring of the Oceans. In *IEEE Oceanic Engineering Society & Marine Technology Society*, OCEANS, June 2019.
- [C8] S. Lazreg, P. Collet, and **S. Mosser**. Assessing the Functional Feasibility of Variability-Intensive Data Flow-Oriented Systems. In *Symposium on Applied Computing (Best Paper Award)*, Pau, France, Apr. 2018.
- [C9] B. Benni, **S. Mosser**, N. Moha, and M. Riveill. A Delta-oriented Approach to Support the Safe Reuse of Black-box Code Rewriters. In *17th International Conference on Software Reuse (ICSR'18)*, Madrid, France, May 2018.
- [C10] B. Benni, **S. Mosser**, P. Collet, and M. Riveill. Supporting Micro-services Deployment in a Safer Way: a Static Analysis and Automated Rewriting Approach. In *Symposium on applied Computing*, Pau, France, Apr. 2018.
- [C11] **S. Mosser** and J.-M. Bruel. Reconciling Requirements and Continuous Integration in an Agile Context (tutorial). In *International Requirements Engineering Conference*, RE, Aug. 2018.
- [C12] F. Fouquet, T. Hartmann, **S. Mosser**, and M. Cordy. Enabling lock-free concurrent workers over temporal graphs composed of multiple time-series. In *Symposium on Applied Computing*, volume 8, Pau, France, Apr. 2018.
- [C13] C. Cecchinell, **S. Mosser**, and P. Collet. Towards a (de)composable workflow architecture to define data collection policies. In ACM, editor, *Symposium on Applied Computing (SAC 2016)*, Pisa, Italy, Apr. 2016.
- [C14] C. Cecchinell, **S. Mosser**, and P. Collet. Automated Deployment of Data Collection Policies over Heterogeneous Shared Sensing Infrastructures. In *23rd Asia-Pacific Software Engineering Conference*, Hamilton, New Zealand, Dec. 2016.
- [C15] C. Cecchinell, **S. Mosser**, and P. Collet. Software Development Support for Shared Sensing Infrastructures: A Generative and Dynamic Approach. In *International Conference on Software Reuse (ICSR'15)*, Miami, United States, Jan. 2015. Springer.
- [C16] S. Urli, M. Blay-Fornarino, P. Collet, **S. Mosser**, and M. Riveill. Managing a Software Ecosystem Using a Multiple Software Product Line: a Case Study on Digital Signage Systems. In *Euromicro Conference series on Software Engineering and Advanced Applications (SEAA'14)*, Special issue: Software Product Lines and Software Ecosystems, pages 1–8, Verona, Italy, Aug. 2014. Elsevier.
- [C17] I. Logre, **S. Mosser**, P. Collet, and M. Riveill. Sensor Data Visualisation: A Composition-Based Approach to Support Domain Variability. In *European Conference on Modelling Foundations and Applications (ECMFA 2014)*, volume 8569, pages 101–116, York, United Kingdom, July 2014. Springer.

- [C18] A. Feugas, **S. Mosser**, and L. Duchien. A Causal Model to predict the Effect of Business Process Evolution on Quality of Service. In *Conference on the Quality of Software Architectures (QoSA)*, pages 143–152, Vancouver, Canada, June 2013. ACM.
- [C19] E. Brandtzaeg, P. Mohagheghi, and **S. Mosser**. Towards a Domain-Specific Language to Deploy Applications in the Clouds. In *3rd International Conference on Cloud Computing, GRIDs, and Virtualization*, pages 213–218, 2012.
- [C20] **S. Mosser**, M. Blay-Fornarino, and L. Duchien. A Commutative Model Composition Operator to Support Software Adaptation. In A. Vallecillo, J.-P. Tolvanen, E. Kindler, H. Störrle, and D. Kolovos, editors, *Modelling Foundations and Applications*, pages 4–19, Berlin, Heidelberg, 2012. Springer Berlin Heidelberg.
- [C21] C. A. Parra, D. Romero, **S. Mosser**, R. Rouvoy, L. Duchien, and L. Seinturier. Using Constraint- based Optimization and Variability to Support Continuous Self-Adaptation. In *27th ACM Symposium on Applied Computing (SAC’12), 7th Dependable and Adaptive Distributed Systems (DADS) Track*, pages 486–491, Trento, Italy, Mar. 2012.
- [C22] V. Aranega, A. Etien, and **S. Mosser**. Using Feature Model to Build Model Transformation Chains. In R. B. France, J. Kazmeier, R. Breu, and C. Atkinson, editors, *Model Driven Engineering Languages and Systems*, pages 562–578, Berlin, Heidelberg, 2012. Springer Berlin Heidelberg.
- [C23] F. D. G. Velásquez, M. Blay-Fornarino, and **S. Mosser**. Introducing Security Access Control Policies into Legacy Business Processes. In *Fifteenth International Enterprise Distributed Object Computing Conference (EDOC’11), short paper*, pages 42–49, Helsinki, Finland, Aug. 2011. IEEE.
- [C24] **S. Mosser**, G. Mussbacher, M. Blay-Fornarino, and D. Amyot. From Aspect-oriented Requirements Models to Aspect-oriented Business Process Design Models. In *10th international conference on Aspect Oriented Software Development (AOSD’11)*, pages 1–12, Porto de Galinhas, Brazil, Mar. 2011. ACM.
- [C25] **S. Mosser**, G. Hermosillo, A.-F. Le Meur, L. Seinturier, and L. Duchien. Undoing Event-Driven Adaptation of Business Processes. In *8th IEEE International Conference on Services Computing (SCC’11)*, pages 234–241, Washington DC, United States, July 2011. IEEE.
- [C26] M. Clavreul, **S. Mosser**, M. Blay-Fornarino, and R. B. France. Service-Oriented Architecture Modeling: Bridging the Gap between Structure and Behavior. In J. Whittle, T. Clark, and T. Kühne, editors, *Model Driven Engineering Languages and Systems (MODELS’11)*, volume 6981 of *Lecture Notes in Computer Science*, pages 289–303, Wellington, New Zealand, Oct. 2011. Springer Berlin / Heidelberg.
- [C27] M. Alférez, N. Amalio, S. Ciraci, F. Fleurey, J. Kienzie, J. Klein, M. Kramer, **S. Mosser**, G. Mussbacher, E. Roubstova, and G. Zhang. Aspect-Oriented Model Development at Dierent Levels of Abstraction. In *7th European Conference on Modelling Foundations and Applications (ECMFA’11)*, pages 1–16, Birmingham, United Kingdom, June 2011. Springer LNCS.
- [C28] **S. Mosser**, A. Bergel, and M. Blay-Fornarino. Visualizing and Assessing a Compositional Approach of Business Process Design. In *Software Composition 2010*, page Springer’s Lecture Notes in Computer Science, Malaga, Spain, June 2010. ACM SIGPLAN and SIGSOFT.
- [C29] **S. Mosser**, M. Blay-Fornarino, and J. Montagnat. Orchestration Evolution Following Dataflow Concepts: Introducing Unanticipated Loops Inside a Legacy Workflow. In *International Conference on Internet and Web Applications and Services (ICIW)*, pages 1–6, Venice, Italy, May 2009. IEEE Computer Society.
- [C30] **S. Mosser**, F. Chauvel, M. Blay-Fornarino, and M. Riveill. Web Service Composition: Mashups Driven Orchestration Definition. In *International Conference on Itelligent Agents, Web Technologies and Internet Commerce (IAWTIC’08)*, pages 1–6, Vienna, Austria, Dec. 2008. IEEE Computer Society.
- [C31] **S. Mosser**, M. Blay-Fornarino, and M. Riveill. Web Services Orchestration Evolution: A Merge Process For Behavioral Evolution. In *2nd European Conference on Software Architecture (ECSA’08)*, pages 1–16, Paphos, Cyprus, Sept. 2008. Springer LNCS.

(viii) Other, including Proceedings of Meetings (international workshops) \*

- [W1] B. Benni, P. Collet, G. Molines, **S. Mosser**, and A.-M. Pinna-Dery. Teaching DevOps at the Graduate Level, a report from Polytech Nice Sophia (short paper). In *First International Workshop on Software Engineering Aspects of Continuous Development and New Paradigms of Software Production and Deployment*, Villebrumier, France, Mar. 2018. LASER Foundation, Springer.
- [W2] L. Gonnord and **S. Mosser**. Practicing Domain-Specific Languages: From Code to Models. In *14th Educators Symposium at MODELS 2018*, Oct. 2018.
- [W3] F. Ciccozzi, M. Famelis, G. Kappel, L. Lambers, **S. Mosser**, R. F. Paige, A. Pierantonio, A. Rensink, R. Salay, G. Taentzer, A. Vallecillo, and M. Wimmer. How do we teach Modelling and Model-Driven Engineering? A survey. In *14th Educators Symposium at MODELS 2018*, Oct. 2018.
- [W4] F. Ciccozzi, M. Famelis, G. Kappel, L. Lambers, **S. Mosser**, R. Paige, A. Pierantonio, A. Rensink, R. Salay, G. Taentzer, A. Vallecillo, and M. Wimmer. Towards a Body of Knowledge for Model-Based Software Engineering. In *14th Educators Symposium at MODELS 2018*, Oct. 2018.
- [W5] M. Blay-Fornarino, G. Jungbluth, and **S. Mosser**. Applying DevOps to Machine Learning, ROCK- Flows, a Story from the Trenches (short paper). In *First International Workshop on Software Engineering Aspects of Continuous Development and New Paradigms of Software Production and Deployment*, Villebrumier, France, Mar. 2018. LASER Foundation, Springer.
- [W6] I. Logre, **S. Mosser**, and M. Riveill. Composition Challenges for Sensor Data Visualization (poster). In *International Conference on Modularity (MODULARITY 2015)*, Fort Collins, United States, Mar. 2015.
- [W7] C. Cecchinell, M. Jimenez, **S. Mosser**, and M. Riveill. An Architecture to Support the Collection of Big Data in the Internet of Things. In *International Workshop on Ubiquitous Mobile cloud (co-located with SERVICES)*, Anchorage, United States, June 2014.
- [W8] **S. Mosser**, P. Collet, and M. Blay-Fornarino. Exploiting the internet of things to teach domain- specific languages and modeling: The arduinoml project. In *EduSymp@MoDELS*, 2014.
- [W9] P. Collet, **S. Mosser**, S. Urli, M. Blay-Fornarino, and P. Lahire. Experiences in Teaching Variability Modeling and Model-driven Generative Techniques. In *Proceedings of the 18th International Software Product Line Conference: Companion Volume for Workshops, Demonstrations and Tools - Volume 2, SPLC '14*, pages 26–29, New York, NY, USA, 2014. ACM.
- [W10] S. Urli, **S. Mosser**, M. Blay-Fornarino, and P. Collet. How to Exploit Domain Knowledge in Multiple Software Product Lines? In *Fourth International Workshop on Product Line Approaches in Software Engineering at ICSE 2013 (PLEASE 2013)*, page 4 p., San Fransisco, United States, May 2013. ACM.
- [W11] **S. Mosser**, I. Logre, N. Ferry, and P. Collet. From Sensors to Visualization Dashboards: Need for Language Composition. In *Globalization of Modeling Languages workshop (GeMOC'13)*, Miami, United States, Sept. 2013.
- [W12] D. Romero, S. Urli, C. Quinton, M. Blay-Fornarino, P. Collet, L. Duchien, and **S. Mosser**. SPLEMMMA: A Generic Framework for Controlled-Evolution of Software Product Lines. In *MAPLE/SCALE 2013*, volume 2, pages 59–66, Tokyo, Japan, Aug. 2013.
- [W13] B. Combemale, J. DeAntoni, R. B. France, F. Boulanger, **S. Mosser**, M. Pantel, B. Rumpe, R. Salay, and M. Schindler. Report on the First Workshop on the Globalization of Modeling Languages. *CoRR*, abs/1408.5703, 2013, 1408.5703.
- [W14] S. Urli, M. Blay-Fornarino, P. Collet, and **S. Mosser**. Using Composite Feature Models to Support Agile Software Product Line Evolution. In *International Workshop on Models and Evolution in MODELS Conference*, pages 1–6, Innsbruck, Austria, Sept. 2012.
- [W15] E. Brandtzæg, **S. Mosser**, and P. Mohagheghi. Towards CloudML, a Model-based Approach to Provision Resources in the Clouds. In *International Workshop on Cloud and MDE (co-loacted with ECMFA)*, pages 1 – 6, 2012.
- [W16] **S. Mosser**, F. Fleurey, B. Morin, F. Chauvel, A. Solberg, and I. Goutier. SENSAPP As a Reference Platform to Support Cloud Experiments: From the Internet of Things to the Internet of Services. In *Proceedings of the*



- 2012 14th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC'12, pages 400–406, Washington, DC, USA, 2012. IEEE Computer Society.
- [W17] **S. Mosser**, L. Duchien, C. A. Parra, and M. Blay-Fornarino. Using Domain Features to Handle Feature Interactions. In A. C. P. Series, editor, *Variability Modelling Software-Intensive Systems (VAMOS)*, pages 101–110, Leipzig, Germany, Jan. 2012. Ulrich Eisenecker, University of Leipzig, DE.
- [W18] D. Ardagna, E. Di Nitto, G. Casale, D. Petcu, P. Mohagheghi, **S. Mosser**, P. Matthews, A. Gericke, C. Ballagny, F. D'Andria, C.-S. Nechifor, and C. Sheridan. MODAClouds: A Model-driven Approach for the Design and Execution of Applications on Multiple Clouds. In *Proceedings of the 4th International Workshop on Modeling in Software Engineering, MiSE '12*, pages 50–56, Piscataway, NJ, USA, 2012. IEEE Press.
- [W19] C. Quinton, **S. Mosser**, C. Parra, and L. Duchien. Using Multiple Feature Models to Design Applications for Mobile Phones. In *MAPLE / SCALE workshop, colocated with SPLC'11*, pages 1–8, Munich, Germany, Aug. 2011.
- [W20] **S. Mosser**, M. Blay-Fornarino, and M. Riveill. Service Oriented Architecture Definition Using Composition of Business-Driven Fragments. In *Models and Evolution (MODSE'09), MODELS'09 workshop*, pages 1–10, Denver, Colorado, United States, Oct. 2009.
- [W21] **S. Mosser**. Are Functional Languages a good way to represent productive meta-models? In *4th European Lisp Workshop (ELW'07)*, pages 1–6, Berlin, Germany, France, July 2007.

#### (ix) Other, including Proceedings of Meetings (national conferences & workshops) \*

- [N1] F. Chauvel, **S. Mosser**, and A. Solberg. Reconsidering QoS Analysis in Dynamic and Open Systems. In *1ère conférence en ingénierie du logiciel(CIEL'12), short paper*, , Rennes, June 2012.
- [N2] A. Feugas, **S. Mosser**, A.-F. Le Meur, and L. Duchien. Déterminer l'impact d'une évolution dans les processus métiers. In *Journées sur l'Ingénierie Dirigée par les Modèles (IDM'11)*, pages 71–76, Lille, France, June 2011.
- [N3] C. Brel and **S. Mosser**. Vers une approche flot de données pour supporter la composition d'interfaces homme-machine. In *Journées sur l'Ingénierie Dirigée par les Modèles(IDM'11)*, pages 1–6, Lille, France, June 2011. CNRS.
- [N4] **S. Mosser** and M. Blay-Fornarino. Taming Orchestration Design Complexity through the ADORE Framework. In *Journées 2010 du GDR GPL, CNRS, Pau, France, Mar. 2010*.
- [N5] **S. Mosser** and M. Blay-Fornarino. Réflexions autour de la construction dirigée par les modèles d'un atelier de composition d'orchestrations. In *15ème conférence francophone sur les Langages et Modèles à Objets (LMO'09)*, pages 1–16, Nancy, France, Mar. 2009. Cépadués.
- [N6] **S. Mosser**, M. Blay-Fornarino, and M. Riveill. Un modèle d'évolution multi-vues des Architectures Orientées Services. In *Actes de l'Atelier Doctorant LMO'08(DOC LMO'08), workshop*, , page 6, Montréal, Mar. 2008. Université de Montréal -.
- [N7] **S. Mosser**, M. Blay-Fornarino, P. Collet, and P. Lahire. Vers l'intégration dynamique de contrats dans des architectures orientées services : une experience applicative du modèle au code. In *2ème Conférence sur les Architectures Logicielles (CAL'08)*, pages 1–15, Montréal, Canada, Mar. 2008.
- [N8] **S. Mosser**, M. Blay-Fornarino, and M. Riveill. Orchestrations de Services Web : Vers une évolution par composition. In *Atelier RIMEL (Rétro-Ingénierie, Maintenance et Evolution des Logiciels)*, , page 6, Toulouse, France, Mar. 2007. Dalila Tamzalit, Salah Sadou.
- [N9] C. Joffroy, **S. Mosser**, M. Blay-Fornarino, and C. Nemo. Des Orchestrations de Services Web aux Aspects. In U. d. T. EMN, INRIA, editor, *3ème Journée Francophone sur le Développement de Logiciels Par Aspects (JFLDPA'2007)*, pages 1–13, Toulouse, France, Mar. 2007.

#### b) Not Peer-reviewed

##### (i) Books

N/A

(ii) Contribution to books

N/A

(iii) Journal articles

N/A

(iv) Research creation and artistic contributions

N/A

(v) Community engagement and knowledge exchange

- **S. Mosser.** *La Thèse ...* (seminar for new Ph.D. Students at Inria Lille – Nord Europe). 2011.

(vi) Journal abstracts

N/A

(vii) Other, including Proceedings of Meetings

N/A

c) Accepted for Publication (in final form)

N/A

d) Submitted for Publication

- A. Lapointe-Boisvert, **S. Mosser**, S. Trudel. Leveraging Acceptance Tests to Support Functional Measurement in a DevOps Context. Submitted to RE@Next!'21.
- **S. Mosser**, A.-M. Pinna-Déry, M. Blay-Fornarino, A. Lachapelle-Dagenais. Teaching Requirement Engineering in the context of Aging population. Submitted to Second International Workshop on Requirements Engineering for Well-Being, Aging, and Health, co-located with RE'21.
- **S. Mosser**, B. Benni. Composing agile backlogs. To be submitted to the 13th System Analysis and Modelling Conference (SAM) 2021.
- **S. Mosser**, B. Benni, X. Blanc. Are smart merge algorithms really smart? To be submitted to the 44<sup>th</sup> International Conference on Software Engineering (ICSE) 2022.
- W. Klewerton, **S. Mosser**, J. Kruger, S. Selaoui. Microservices co-evolution: an empirical study on 12 open-source architectures. To be submitted to the 44<sup>th</sup> International Conference on Software Engineering (ICSE) 2022.

e) Unpublished Documents

(i) Technical report series

N/A

(ii) Other

N/A

## 15. Presentations at Meetings

### a) Invited

- [P1] **S. Mosser.** Anaximander, a lightweight approach to support software exploration. Working group on software adaptation (YODA), *Centre National de la Recherche Scientifique (CNRS)*. Feb. 2021.
- [P2] **S. Mosser.** Using a project-based approach to support Software Engineering teaching. LATECE seminar, UQAM, Montréal, Canada. Feb. 2020.
- [P3] **S. Mosser.** How can models help data scientists? Lessons learned from an undercover agent. 2<sup>nd</sup> Winter Modelling Meeting. San Vigilo de Marrebe, Italy. Feb. 2020.
- [P4] **S. Mosser.** Software Composition in a Cyber-Physical World. Ptidej Research Seminar, Concordia University, Montréal, Canada. Dec. 2019.
- [P5] **B. Benni and S. Mosser.** Applying Software Composition to the Docker Ecosystem. Amadeus Global Tech Forum. **Keynote**. Oct. 2018
- [P6] **S. Mosser.** Les aspects génie logiciel pour les Systèmes Cyber-Physique. In *Journées IIoT du GDR MACS, CNRS*, France, July 2018.
- [P7] **S. Mosser.** Renforcer l'engagement étudiant en projet. Journées sur la pédagogie active, Université Bretagne-Loire. **Keynote**. July 2017.
- [P8] **S. Mosser.** Projets, Agilité & École d'Ingénieur. Journées sur l'Innovation Pédagogique, Université du Maine. **Keynote**. Mar. 2017.
- [P9] V. Aranega, A. Etien, and **S. Mosser.** Using Feature Model to build Model Transformation Chains. In *Journées 2013 du GDR GPL, CNRS*, France, Mar. 2013.
- [P10] **S. Mosser**, G. Mussbacher, M. Blay-Fornarino, and D. Amyot. Une approche orientée aspect allant du modèle d'exigences au modèle de conception. In *Journées du GDR GPL*, pages 37–38, Lille, France, June 2011.

### b) Contributed

#### (i) Peer reviewed

N/A

#### (ii) Not peer reviewed

N/A

## 16. Patents, Invention and Copyrights

- “*Assets logiciels utilisés pour réaliser un Système de Diffusion d’Information - YourCast*”. Mireille Blay-Fornarino, Simon Urli, **Sébastien Mosser** and Daniel Romero. *Agence de la Protection des Programmes (APP)* IDDN.FR.001.320001.000.S.C.2014.000.31235, France. 2014
- “*Diffusion d’informations par composition - JSEDUITE*”. **Sébastien Mosser**, Mireille Blay-Fornarino, Michel Riveill and David Emsellem. *Agence de la Protection des Programmes (APP)* IDDN.FR.001.120009.000.S.P.2011.000.00000, France. 2010

## 17. Administrative Responsibilities

### a) Department

- 2020 – 2021 Co-director of the M.Sc. in Software Engineering (UQAM). *Elected*.
- 2019 – 2021 Co-director of the B.Sc. in Computer Science and Software Engineering (UQAM). *Elected*.
- 2014 – 2018 Computer Science department executive board (UCA). *Elected*.
- 2013 – 2018 Director of the M.Sc. in Software Architecture (UCA). *Appointed*.

- 2012 – 2018 Coordinator of project-based teaching for software engineering (UCA). *Appointed.*

#### b) Faculty

- 2018 Executive board of the Computer Science Research Center (I3S, UCA/CNRS). *Appointed.*
  - The position was appointed for three years. I had to resign when I left UCA to join UQAM in 01/2019.

#### c) University

- 2020- 2021 *Comité Apprentissage Recherche (UQAM). Appointed.*
  - This committee advises the Vice-President (Information Systems) with respect to the University digital strategy related to teaching and research.

### 18. Other Responsibilities

- **SE@MTL.** Together with J. Kienzle (McGill), F. Bordeleau (ÉTS) and H. Sahraoui (UdeM), we founded in 2019 the *Software Engineering at Montreal* community to animate the local research ecosystem by organizing monthly seminars that bring together ~30 participants. The seminar cycle is on hold until Fall 2021 because of the COVID-19 crisis.