Curriculum Vitæ

Last Name   :   Guéhéneuc

First Name   :   Yann-Gaël

Department   :   Department of Computer Science and Software Engineering
Organisation :   Concordia University
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H3G 1M8

Date   :   November 17, 2017

Signature   :

Personal Information

Degrees:

- February 2009: certificate of ethical formation from the Ministère de la Santé et des Services Sociaux, Quebec, Canada, modules 1, 3.1, and 3.2.

- June 2003: Ph.D. degree in software engineering from Université de Nantes, obtained at École des Mines de Nantes, France.

- October 1998: M.Sc. degree in computer science from Université de Nantes, France (in French: diplôme d'études approfondies en informatique).

- October 1998: Engineering degree from École des Mines de Nantes, France.

- July 1993: B.Sc. degree in mathematics and techniques from Lycée Livet, Nantes, France (in French: diplôme de baccalauréat en mathématiques et technique).

Professional Career:

- Since September 2017, full professor at CSE, Concordia University.

- From March 2013 to April 2014, sabbatical leave at Yonsei University.

- From June 2012 to August 2017, full professor at DGIGL, Polytechnique Montréal.

- From June 2008 to May 2012, associate professor at DGIGL, Polytechnique Montréal.

- From May 2007 to April 2014, associate member of CIRRELT.

- From August 2003 to May 2008, assistant professor at DIRO, Univeristé de Montréal.

Other Titles:

- IEEE Senior Member since the 16/04/2010.

- Engineer (registered to Quebec Engineering Order) since July 2008.

Awards:

- Best Paper Award at the *IEEE International Conference on Service Oriented Computing and Applications* in November 2014.

- Runner-up Best Paper Award at the *Springer International Conference on Service Oriented Computing* in November 2012.

- Best Paper Award at the *IEEE Working Conference on Reverse-engineering* in September 2012.

- Best Paper Award at the *IEEE International Conference on Software Maintenance and Reengineering* in March 2011.

- Best Paper Award at the *IEEE International Conference on Software Maintenance – Early Research Achievements* in September 2010.

- Prix Méritas 2009-2010 of the student association at Polytechnique Montréal for graduate teaching in software engineering.

- Best Paper Award at the *IEEE International Conference on Software Maintenance and Reengineering* in March 2010.

- Featured article in the *IEEE Transactions in Software Engineering* in June 2007: "Feature Location using Probabilistic Ranking of Methods based on Execution Scenarios and Information Retrieval".

- Best Paper Award at the *IEEE International Conference on Program Comprehension* in June 2006.

- Best Paper Award at the *IEEE International Conference on Software Maintenance* in September 2005.

Contents

Teaching

1. Courses

Number	Title	Organisation	Cycle	Session	Credits	Students
LOG6306	Empirical Studies on Software Patterns	DGIGL, ÉPM	2nd	F16	3	8
LOG8430	Advanced Software Architecture and Design	DGIGL, ÉPM	1st	W16	3	32
LOG6306	Empirical Studies on Software Patterns	DGIGL, ÉPM	2nd	F15	3	13
LOG8430	Advanced Software Architecture and Design	DGIGL, ÉPM	1st	W15	3	38
LOG6306	Pattern for Program Comprehension	DGIGL, ÉPM	2nd	F14	3	17
CSE3009	Software Design and Architecture	C&T Engineering, Yonsei	1st	W14	3	15
CSE3010	Theory and Practice of Software Patterns	C&T Engineering, Yonsei	1st	F13	3	7
CSE3009	Software Design and Architecture	C&T Engineering, Yonsei	1st	W13	3	36
LOG4430	Advanced Software Architecture and Design *(Half)*	DGIGL, ÉPM	1st	W13	3	23
LOG6306	Patterns for Program Comprehension	DGIGL, ÉPM	2nd	F12	3	5
LOG4430	Advanced Software Architecture and Design	DGIGL, ÉPM	1st	W12	3	36
INF6306	Patterns for Program Comprehension	DGIGL, ÉPM	2nd	F11	3	17
LOG4430	Advanced Software Architecture and Design	DGIGL, ÉPM	1st	W11	3	44
INF6306	Patterns for Program Comprehension	DGIGL, ÉPM	2nd	F10	3	6
INF6306	Patterns for Program Comprehension	DGIGL, ÉPM	2nd	F09	3	14
LOG4430	Advanced Software Architecture and Design	DGIGL, ÉPM	1st	F09	3	30
LOG4430	Advanced Software	DGIGL, ÉPM	1st	W09	3	23

	Architecture and Design					
LOG3900	Project of Evolution and Maintenance of a Software System	DGIGL, ÉPM	1st	W09	3	32
IFT2255	Software Engineering	DIRO, FAS	1st	S08	3	36
IFT6310	Software Engineering	DIRO, FAS	2nd	W08	4	8
IFT3912	Development, Maintenance of Software	DIRO, FAS	1st	F07	3	24
IFT6251	Subjects in Software Engineering	DIRO, FAS	2nd	F06	4	9
IFT3902	Development, Maintenance of Software	DIRO, FAS	1st	F06	4	28
IFT3903	Software Quality and Metrics	DIRO, FAS	1st	W06	4	18
IFT6251	Subjects in Software Engineering	DIRO, FAS	2nd	F05	4	14
IFT3902	Development, Maintenance of Software	DIRO, FAS	1st	F05	4	24
IFT2251	Software Engineering	DIRO, FAS	1st	W05	4	33
IFT3902	Development, Maintenance of Software	DIRO, FAS	1st	F04	4	30
IFT2251	Software Engineering	DIRO, FAS	1st	W04	4	70
IFT3902	Development, Maintenance of Software	DIRO, FAS	1st	F03	4	36
				30 courses		726

2. Supervision of Graduate Students

2.1. Post-doctorates and Research Associates

Name	Title	Cycle	Role	Start	End
Md Saidur Rahman	Applying Machine Learning Techniques to the Identification and Correction of Anomalies in Data	3rd	Co-supervisor	F17	W18
Fábio Petrillo	Understanding Interactive Debugging with Swarm Debug Infrastructure	3rd	Co-supervisor	S15	W16
Anas Shatnawi	Architectural Migration of Legacy Applications – Legacy Web Applications to Service-oriented Architectures	3rd	Co-supervisor	S15	W16
Wei Wu	Meta-modelisation for the Modernisation of Business Software	3rd	Co-superviseur	W15	F15
Carla Katarina De Monteiro Marques	Specification and Detection of Anti-patterns for Grid Computing using Grid Process Orchestration	3rd	Supervisor	F14	W15
Henrique Jorge Amorim Holanda	BPEL Antipatterns: an Approach for their Specification and Detection	3rd	Supervisor	F14	W15
Ségla Kpodjedo	Comparison of software architectures	3rd	Supervisor	F12	S13
Marwen Abbes	Maintenance of an eye-tracking infrastructure	3rd	Supervisor	W11	W11
Yousra Tagmouti	Maintenance of an eye-tracking infrastructure	3rd	Supervisor	S09	F09
Gerardo Cepeda	Assessment of the layouts of class diagrams	3rd	Supervisor	F08	F08
Simon Denier	Evolution and Aspectisation of Design Patterns	3rd	Supervisor	F07	S09
1 post-doctorate(s)/research associate(s) in progress 10 post-doctorates/research associates done					

2.2. Ph.D. Theses

Name	Title	Level	Role	Start	End

Manel Abdellatif	On the Migration towards Service-oriented Architectures	3rd	Co-supervisor with Naouel Moha (UQÀM)	S15	
Mouna Abidi	Design (Anti-)Patterns in Multi-language Systems	3rd	Supervisor	S15	
Luis Diego Correa Arias	Control and Data Flow Algorithms for Multi-language Systems	3rd	Supervisor	S15	
Manel Grichi	Change Impact Analyses in Multi-language Systems	3rd	Supervisor	S15	
Zeinab Kermansaravi	On the Mutation of Software Patterns	3rd	Co-supervisor with Foutse Khomh (DGIGL)	W15	
Rubén Saborido-Infantes	Analysing and Understanding Energy Consumption of Software	3rd	Co-supervisor with Foutse Khomh (DGIGL)	F14	
Fábio Petrillo	Swarm Debugging: the Collective Debugging Intelligence of the Crowd	3rd	Host with Foutse Khomh (DGIGL)	F15	S16
Francis Palma	Unifying Service Oriented Technologies for the Specification and Detection of their Antipatterns	3rd	Co-supervisor with Naouel Moha (UQÀM)	F11	S15
Ali Nasir	Analysing Source Code Structure and Mining Software Repositories to Create Requirements Traceability Links	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	F09	F12
Venera Arnaoudova	Towards Improving the Source Code Lexicon and its Consistency	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	F09	S14
Laleh Mousavi-Eshkevari	Automatic Detection and Classification Of Identifiers	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	F09	S15
Latifa Guerrouj	Context-Aware Source Code Vocabulary Normalization for Software Maintenance	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	S09	S13
Salima Hassaine	Evaluating Design Decay during Software Evolution	3rd	Co-supervisor with Sylvie Hamel (DIRO)	F07	F12
Fehmi Jaafar	Analysing Artefacts Dependencies to Evolving Software Systems	3rd	Co-supervisor with Sylvie Hamel (DIRO)	F09	W13
Abdou Maiga	Improving the Quality of Anti-patterns Recommendations	3rd	Co-supervisor with Esma Aimeur (DIRO)	F08	F12

Soumaya Medini	Trace Segmentation for Program Comprehension	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	F10	F14
Aminata Sabané	Reducing Object-Oriented Testing Cost through the Analysis of Antipatterns	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	F09	W15
Abdelilah Sakti	Automatic Test Data Generation using Constraint Programming and Search Based Software Engineering Techniques	3rd	Co-supervisor with Gilles Pesant (DGIGL)	F10	W14
Zohreh Sharafi	On the Influence of Representation Type and Gender on Program Comprehension	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	F10	W15
Zéphyrin Soh	Understanding Design Patterns	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	F10	F15
Wei Wu	Understanding and Tooling Framework API Evolution	3rd	Co-supervisor with Giuliano Antoniol (DGIGL)	S10	S15
Foutse Khomh	Design Pattern-based Quality Models	3rd	Supervisor	F06	S10
Naouel Moha	Classification, Detection, and Correction of Design Defects	3rd	Co-supervisor with Laurence Duchien (LIFL)	S05	S08
			6 Ph.D. theses in progress 17 Ph.D. theses done		

2.3.   M.Sc. Theses

Name	Title	Level	Role	Start	End
Antoine Barbez	Applying Machine Learning Techniques to the Identification of Code Smells	2nd	Co-supervisor with Foutse Khomh (DGIGL)	F17	
Diana El-Masri	Polyglot Systems	2nd	Supervisor	F17	
Atefeh Meshinchi	Efficient Configuration of Software-defined Networks	2nd	Co-supervisor with Alejandro Quintero (DGIGL)	F16	
Mahdis Zolfagharinia	Leveraging Build Systems for Migration	2nd	Co-supervisor with Bram Adams (DGIGL)	S15	
Béchir Bani	Impact of Cloud Patterns and Databases on the Energy Consumption of Cloud Applications	2nd	Co-supervisor with Foutse Khomh (DGIGL)	W15	S16
Étienne Duclos	ACRE: An Automated Aspect Generator to Test C++ Programs	2nd	Co-supervisor with Sébastien Le Digabel (DMAGI)	W11	W12
Neelesh Bhattacharya	Test Data Generation for Exposing Interference Bugs in Multi-Threaded Software Systems	2nd	Co-supervisor with Giuliano Antoniol (DGIGL)	F09	W12
Ferdaous Boughanmi	Source Code and License Statement Co-Evolution	2nd	Co-supervisor with Giuliano Antoniol (DGIGL)	F08	W12
Marwen Abbes	Impact of Anti-patterns in Program Comprehension	2nd	Supervisor	F08	F10
Gerardo Cepada	Study of UML Class Diagrams Understanding with Eye-tracker	2nd	Supervisor	F07	S08
Wei Wu	Evolution of Software Systems	2nd	Supervisor	F07	F09
Julien Tanteri	Software Evolution and Advanced Visualisation	2nd	Supervisor	F07	F09
Mathieu Lemoine	Transformations and Evolution	2nd	Supervisor	F07	F09
Paul Bertrand	A Java Geographical Component for Pocket-PC	2nd	Supervisor	F06	S08
Yousra Tagmouti	Code Generation from Design Patterns for Hardware Systems	2nd	Co-supervisor with El Mostpaha Aboulhamid (DIRO)	F06	S08

Norddin Habti	Static Analyses of the Composition Relationsip	2nd	Co-supervisor with Stefan Monnier (DIRO)	W06	W08
Jean-Yves Guy-omarc'h	A Quality Model for Aspect-oriented Programs	2nd	Supervisor	F04	W06
Olivier Kaczor	Efficient Algorithms for Design Motif Identification	2nd	Co-supervisor with Sylvie Hamel (DIRO)	F04	W06
Janice Ka-Yee Ng	Modelisation and Analysis of Behavioural Design Motifs	2nd	Supervisor	F04	S08
Saliha Bouden	Non-behaviour Refactorings	2nd	Supervisor	W04	F06
Samah Rached	Analysis of Program Behaviour using Adjacency Matrices	2nd	Co-supervisor with Petko Valtchev (DIRO)	W04	S05
Khashayar Khosravi	Design-pattern based Quality Model	2nd	Supervisor	F03	S05
			4 M.Sc. thesis(es) in progress 18 M.Sc. theses done		

2.4.   Capstone and Master Projects

Name	Title	Level	Role	Start	End
Jean Rublé	Linguistic Antipatterns	1st	Supervisor	S17	S17
Raphaël Bissonnette	Open Data Infrastructure	1st	Supervisor	S17	S17
Julien Hebmann and Niverthan Panchalingam	JavaScript in NetSurf	1st	Supervisor	S17	S17
Dipti Ranjan Sahu	Open Data Infrastructure	1st	Supervisor	S17	S17
Fatima Sabir	Correction of SOA Anti-patterns	3rd	Supervisor	S17	S17
Deng Zichao	Improving Brunch	1st	Supervisor	W17	W17
Gaëtan François	A Web Application to Analyse the Quality of Web Services	2nd	Co-supervisor with Naouel Moha (UQÀM)	S16	S16
Dylan Levy	Compiling and Improving a Web Browser for the AmigaOS 3	1st	Supervisor	S16	S16
Arnaud Soulier	Refactoring and Deployment of Web Services to Analyse the Quality of OO Programs	1st	Supervisor	W16	W16
Aymen Zalila	Compiling and Improving a Web Browser for the AmigaOS 3	1st	Supervisor	W16	W16
Charles Da Pont, Ludovic David, and Stéphane Di Miceli	Identification of Services in a Java Program and their Implementation in Tomcat	2nd	Supervisor	S15	S15
Faissal Kientore	Updating SQANER, a Software Quality Analysis Web Portal	2nd	Supervisor	S15	S15
Thibault Père et Hugo Vautrin	Migration of Object-oriented Applications to the Cloud	2nd	Co-supervisor with Foutse Khomh (DGIGL)	S14	S14
Thomas Drioul and Pierre-Antoine Rappe	Relevancy and usefulness of program entities	2nd	Supervisor	F13	W14
Sébastien Colladon	Developing GRASS Monitoring System	2nd	Supervisor	W12	W12
Julien Christophe	A Study of Design Pattern Understanding with Eye-tracker	2nd	Supervisor	F11	F11
Sébastien Colladon	Search Algorithms and Games	2nd	Supervisor	F11	F11
Nicolas Soyeur	A Study of Design Pattern Understanding with Eye-tracker	2nd	Supervisor	F11	F11
Samuel Auguste	Developing GRASS Monitoring System	2nd	Co-supervisor with Giuliano Antoniol (DGIGL)	S11	S11

Aditya Gaurav	API Evolution (MITACS Globalink bursary)	2nd	Co-supervisor with Giuliano Antoniol (DGIGL)	S11	S11
Kumar Nitesh Singh	API Evolution (MITACS Globalink bursary)	2nd	Co-supervisor with Giuliano Antoniol (DGIGL)	S11	S11
Benoît de Smet	Taupe: A Visualisation System for Eye-tracking Data	1st	Supervisor	F10	F10
Lorent Lempereur	Taupe: A Visualisation System for Eye-tracking Data	1st	Supervisor	F10	F10
Nicolas Haderer	Developing GRASS Monitoring System	1st	Supervisor	W09	S09
Joseph Daoud	A First Prototype for Goodle Android	1st	Supervisor	W09	W09
Diane Gnimadi	Evolution of design defects	1st	Supervisor	F08	W09
Bertrand van den Plas	A Study of Design Pattern Understanding with Eye-tracker	2nd	Supervisor	F08	F08
Alban Tiberghien	Implantation of a DSL for Specifying Design Defects	2nd	Co-supervisor with Naouel Moha (DIRO)	S08	S08
Nelson Cabral	PTIDEJEclipse Connector	1st	Supervisor	W08	W08
Pierre Benedicto	A C♯ Parser for PTIDEJ	1st	Supervisor	W08	W08
Sébastien Jeanmart	A Study of Design Pattern Understanding with Eye-tracker	2nd	Co-supervisor with Houari Sahraoui (DIRO)	F07	F07
Maëlle Saïag and Bastien Marivint	XMI Support and Hibernate in PTIDEJ	1st	Supervisor	F07	F07
Feras Arabi	PalmBibDB	1st	Supervisor	F07	F07
Alban Tiberghien	Une comparaison d'outils de détection des défauts de conception	2nd	Supervisor	S07	S07
François Charbonneau	A Questionnaire on Development Processes in the Gaming Industry	1st	Supervisor	W07	W07
Gulam Modelin	Eyetracker Experiments	1st	Supervisor	W07	W07
Jad Karam	SOUL and PTIDEJ Comparison	1st	Supervisor	W07	W07
Mathieu Lemoine	A Experimental Platform for the Perfect Ear	1st	Co-supervisor with Patrick Bermudez (McGill)	W07	W07
Fatoumata Traoré	Identification of Micro-architectures similar to Design Defects	1st	Supervisor	W07	W07
Rabih Mustapha	A Recommender for Design Patterns	2nd	Supervisor	S06	F06

Mohamed Kahla (NSERC Bursary)	Implantation of Sugiyama Algorithms in PTIDEJ	1st	Supervisor	S06	S06
Pierre Leduc (NSERC Bursary)	Definition of a DSL for Design Defects	2nd	Supervisor	S06	S06
Nicola Grenon, Abdeljabar Hammodan, and Rafik Ouanouki	Identification of Micro-architectures similar to Design Motifs	1st	Supervisor	S06	S06
David St Hilaire (NSERC Bursary)	An Open-source Collection of Operation Research Algorithms	1st	Co-supervisor with Jean-Yves Potvin (DIRO)	S06	S06
Amine Mohammed Harmamk and Laila el Badaoui	Identification of Micro-architectures similar to Design Motifs	1st	Supervisor	W06	W06
Pierre Leduc and Julien Tanteri	Implantation of Micro-patrons in PTIDEJ	1st	Supervisor	W06	W06
Mohammed Amine El Haimer and Najib Tajeddine	Semi-automated Detection of Design Defects	1st	Supervisor	F05	F05
Mehdi Lahlou	Improving the User Interface of PTIDEJ and Integrating Multilingual Capabilities	1st	Supervisor	S05	S05
Sébastien Boisclair, Vinh Thinh Le, and Joseph Vong	Identification of Micro-architectures similar to Design Motifs	1st	Supervisor	S05	S05
Ilya Bibik	Documentation Standardisation Software Project	2nd	Supervisor	S05	S05
Eddy Ghassan	Customisation of an E-Commerce Site	2nd	Supervisor	W05	W05
Rida Bouchaib, Anouar Ben Daho, Boubkre El Allani, and Khalid Kandouli	An Open-source Collection of Operation Research Algorithms	1st	Co-supervisor with Jean-Yves Potvin (DIRO)	W05	W05
Denise Getibo, Emmanuelle Orcel, Mehdi El Moutaouakkil, and Yves Bia Toe	Identification of Micro-architectures similar to Design Motifs	1st	Supervisor	W05	W05
Lliv Dialine Nkouka Diamona	Identification of Micro-architectures similar to Design Defects	1st	Supervisor	W05	W05
Antoine Tremblay	Kayak – A Multi-platforms C++ BitTorrent	1st	Supervisor	F04	F04
Ward Flores and Sébastien Robidoux	A C/C++ Parser for PADL	1st	Supervisor	S04	S04

Lulzim Laloshi and Driton Salihu	PTIDEJ in ECLIPSE	1st	Supervisor	S04	S04
Salim Bensemmane, Iyadh Sidhom, and Fayçal Skhiri	JPTIDEJSOLVER: A Java Explanation-based Constraint Solver for Design Motif Identification	1st	Supervisor	S04	S04
Nawfal Chraibi, Duc-Loc Huynh, and Janice Ka-Yee Ng	Identification of Micro-architectures similar to Design Patterns	1st	Supervisor	S04	S04
Farouk Zaidi	A ECLIPSE Plug-in to Compute Metrics	1st	Co-supervisor with Houari Sahraoui (DIRO)	W04	S04
Steeve Chantrel	An Environment to Convert Java Programs in Web Services	1st	Co-supervisor with Julie Vachon (DIRO)	W04	W04
Karim Larichi and Jean-Nicolas Malek	Representation of the Dynamic Aspects of Design Patterns	1st	Supervisor	W04	W04
Marc-André Bois	A BibTeX Extension to ECLIPSE	1st	Supervisor	W04	W04
	0 project(s) in progress (0 students) 63 projects done (89 students)				

3.   Jurys

3.1.   Ph.D. Theses

Name	Title	Level	Organisation	Role	Date
Deepak Kumar Aggarwal	A Platform as a Service for Concurrency-based Applications Provisioning in Internet of Things	2nd	Concordia University	External member of the jury	27/10/17
Pavel Orlov	Extrafoveal Vision of Programmers	3rd	University of Eastern Finland	External member of the jury	26/10/16
Yujuan Jiang	Mining Software Repositories for Release Engineers – Empirical Studies on Integration and Infrastructure-as-Code	3rd	DGIGL, ÉPM	Member of the jury	25/08/16
Étienne De Montigny	Instrumentation optique pour l'identification per-opératoire des tissus durant les chirurgies de la thyroïde	3rd	DGIGL, ÉPM	Representative of the Director of the Graduate Studies	22/08/16
Behzad Beheshti	Empirical Means to Validate Skills Models and Assess the Fit of a Student Model	3rd	DGIGL, ÉPM	President of the jury	19/04/16
Marc-André Daigneault	Synthèse et description de circuits numériques au niveau des transferts synchronisés par les données	3rd	DGIGL, ÉPM	Representative of the Director of the Graduate Studies	21/12/15
Hafeez Osman	Interactive Scalable Condensation of Reverse Engineered UML Class Diagrams for Software Comprehension	3rd	University of Leiden	External member of the jury	10/03/15

Yushan Zheng	CMOS and MEMS Based Microsystems for Bio-Particles Manipulation and Detection Using Magnetic Beads	3rd	DGIGL, ÉPM	Representative of the Director of the Graduate Studies	20/11/14
Aurel Josias Oboubé Randolph	Convergence et sécurité d'accès dans les systèmes d'édition collaborative massivement répartis	3rd	DGIGL, ÉPM	Member of the jury	29/08/14
Javier Sayago Hoyos	Electrolyte-gated Organic Transistors making use of Room Temperature Ionic Liquid as Gating Medium	3rd	DGIGL, ÉPM	Representative of the Director of the Graduate Studies	28/08/14
Cong Kien Dang	Optimization of Algorithms with the Opal Framework	3rd	DGIGL, ÉPM	Representative of the Director of the Graduate Studies	5/06/12
Dominic Letarte	Détection, protection, évolution et test de défaillances à l'aide d'un modèle inter-procédural simple	3rd	DGIGL, ÉPM	President of the jury	02/12/11
Rafael Guillermo Padron	Coevolutionary Algorithm for Automated Test Data Generation to Detect NPE in Java Systems	3rd	DGIGL, ÉPM	President of the jury	23/08/11
Khalid Al-Sarayreh	Identification, Specification, and Measurement, using International Standards, of the System Non Functional Requirements Allocated To Real-Time Embedded Software	3rd	ÉTS	External member of the jury	22/08/11
Eduardo Miranda	Improving the Estimation, Contingency Planning and Tracking of Agile Software Development Projects	3rd	DGLTI, ÉTS	External membre of the jury	25/08/10
Nourreddine Kerzazi	A Multi-perspective Design Framework for Modelling Software Engineering Processes	3rd	DGIGL, ÉPM	Membre of the jury	10/08/10
Ali Ghaddar	Evolution of Web Services Architecture – Towards a REST Web Service for a Domain Model	3rd	Université de Nantes	Membre of the monitoring committee	02/07/10

Radu Deca Canciu	Constraint-based models for automated network service provisioning	3rd	DGIGL, ÉPM	Representative of the Director of the Graduate Studies	31/08/09
Louis-Julien Guillemette	Vérification formelle de la préservation des types dans un compilateur pour System F	3rd	DIRO, FAS	Member of the jury	
Abdelaal Mohamed Mostageer	LINC based Amplifier Architectures for Power Efficient Wireless Transmitters	3rd	DGIGL, ÉPM	Representative of the Director of the Graduate Studies	24/04/09
Usman Bhatti	Object Identification and Aspect Mining in Procedural Object-Oriented Code	3rd	Université Paris-Sud, Orsay, France	External member of the jury	15/12/08
Edgardo Palza	A Referential of Unified Processes and Genetic Metric Repository for Critical Systems	3rd	ETS, Montreal, Québec, Canada	External member of the jury	12/12/08
Laila Cheikhi	Empirical Study of the Relationships between ISO 9126 Quality Models using the ISBSG Repository and the Taguchi Method	3rd	ETS, Montréal, Québec, Canada	External member of the jury	19/02/08
Ghazwa Malak	A Probabilistic Approach to Assess Web Application Quality	3rd	DIRO, FAS	Member of the jury	29/11/07
Andy Kellens	Co-design and Co-evolution of Source Code and its Structural Regularities using Intensional Views	3rd	VUB, Bruxelles, Belgique	External member of the jury	8/06/07
Emmanuel Blanchard	Motivation and Culture in E-Learning	3rd	DIRO, FAS	Member of the jury	9/05/07
Salah Bouktif	Improving the Prediction of Software Quality by Combining Models	3rd	DIRO, FAS	Member of the jury	23/06/05
Sarita Bassil	Applying Workflows Technology to Socio-technical Complex Problems	3rd	DIRO, FAS	Member of the jury	22/02/05
Arnoldo Rodriguez Chaves	An Intelligent Help System to Support Teachers to Author Learning Session in Decision-making	3rd	DIRO, FAS	Member of the jury	08/02/05

3.2. M.Sc. Theses

Name	Title	Level	Organisation	Role	Date
Amir Saboury	On the Fault-proneness of Javascirpt Code Smells	2nd	DGIGL, ÉPM	Member of the jury	14/12/16
Hassan Anwar	A Probabilistically Analysable Cache to Improve Timing Analysis Bounds	2nd	DGIGL, ÉPM	President of the jury	17/06/16
Vincent Boisselle	Automated Identification of Functional Problems in Flight Simulators	2nd	DGIGL, ÉPM	Member of the jury	16/12/15
An Le	Improvement of Bug Triage with Data Analytic Techniques	2nd	DGIGL, ÉPM	Member of the jury	24/08/15
Thierry Lavoie	Analyse des propriétés structurelles et computationnelles des clones logiciels	2nd	DGIGL, ÉPM	Member of the jury	24/08/11
Alexandre Spaeth	Comparaison de classificateurs pour tests adaptatifs	2nd	DGIGL, ÉPM	President of the jury	28/08/09
Zeina Awedikian	Automatic Data Generation for MC/DC Test Criterion using Metaheuristic Algorithms	2nd	DGIGL, ÉPM	Member of the jury	28/04/09
Sihem Benzalis		2nd	DIRO, FAS	Member of the jury	31/03/09
Jeanne D'Arc Uwatowenimana	Identification of Motifs in the Collaborative Writing in Wikis	2nd	DIRO, FAS	Member of the jury	15/05/08
?		2nd	DIRO, FAS	Member of the jury	28/04/08
?		2nd	DIRO, FAS	Member of the jury	28/04/08
Sihem Benlizidia	Loresa: A Recommender for Teaching Objects based on Semantic Annotations	2nd	DIRO, FAS	Member of the jury	31/03/08
Karim Dhambri	Visual Identification of Design Anomalies in Object-oriented Programs	2nd	DIRO, FAS	President of the jury	19/02/08
Marie-Élise Cordeau	Improving the Spatial and Emotive Perception in an Interactive Virtual Environment by Managing Camera Views	2nd	DIRO, FAS	Member of the jury	8/02/08

Fan Yang	Rule-based Quality Heuristics Formalization and Identification	2nd	DIRO, FAS	President of the jury	17/10/07
Olga Trembach	Rewriting a Ticketing System	2nd	DIRO, FAS	Member of the jury	16/10/07
Maxime Benoît-Gagné	A New Sort Algorithm by Transposition	2nd	DIRO, FAS	Member of the jury	27/08/07
David Daboué	Using Web Technologies to Improve the Processes of Quebec Soccer League	2nd	DIRO, FAS	Member of the jury	12/04/07
Xi Ning Zhu	Design and Implementation of an AI Portal	2nd	DIRO, FAS	Member of the jury	12/04/07
Frédéric Bastien	Design of a Behavioural Model for Formal Verification	2nd	DIRO, FAS	Member of the jury	24/01/07
Amal el Ouarari	A Pursuit Game in Non-reflexive Graphs	2nd	DIRO, FAS	President of the jury	7/11/06
Guillaume Germain	Design of a Programming Language for Distributed Programs	2nd	DIRO, FAS	Member of the jury	29/05/06
Ikbal Taleb	Quality in Web Services	2nd	DIRO, FAS	President of the jury	24/04/06
Nicolas Bergeron	Generation of Normal and Illumination Maps in Digital Composition	2nd	DIRO, FAS	President of the jury	01/05/06
Ai Thanh Ho	DiGiCam: A Need-based Recommander System	2nd	DIRO, FAS	Member of the jury	15/02/06
Xiaoqing Zhu	Online Fundraising Campaign	2nd	DIRO, FAS	Member of the jury	24/01/06
Badis Merdaoui	Queri: A Collaborative and Interactive Question–Answer System	2nd	DIRO, FAS	Member of the jury	21/10/05
Eric Buist	Design and Implementation of a Library for the Simulation of Call Centers	2nd	DIRO, FAS	Member of the jury	15/09/05
Kamal Yammine	Applying a Recommender for Pedagogical Resources using the Z39.50 Protocol	2nd	DIRO, FAS	Member of the jury	20/05/05
Laila Cheikhi	Change Impact Analysis in Object-oriented Programs	2nd	DIRO, FAS	Member of the jury	26/11/04
Rachida Elaroussi-Chentoufi	Exchange of B2B Documents	2nd	DIRO, FAS	Member of the jury	22/09/04
Jean-François Saint Amour	Real-time Rendering of Fuzzy Shadows using Depth Buffers	2nd	DIRO, FAS	President of the jury	21/09/04
Dongfeng Li	Nego: A Virtual Negotiation Market	2nd	DIRO, FAS	Member of the jury	07/09/04

Song Zhang	Semantic Query Parsing in Classification of Harmonised System Code	2nd	DIRO, FAS	Member of the jury	28/05/04
					34 M.Sc. thesis jurys

3.3. Others

Name	Title	Level	Organisation	Role	Date
Peng Xu	Matrix Factorization and Boosting Techniques for Q-matrix Validation	3rd	DGIGL, ÉPM	President of the jury for the comprehensive exam	20/04/16
Mohammed Sayagh	Resolving Misconfiguration Errors in Multi-layered Software Architectures	3rd	DGIGL, ÉPM	President of the jury for the comprehensive exam	20/04/16
Rodrigo Morales Alvarado	On the Automatic Correction of Anti-patterns	3rd	DGIGL, ÉPM	President of the jury for the comprehensive exam	19/06/15
Mathieu Lavallée	Metamodel for the Description of the Processes of Software Development Teams	3rd	DGIGL, ÉPM	Member of the jury for the comprehensive exam	30/04/13
Mathilde Peyrega	Contributions to the Optimisation without Differential Equations	3rd	DGIGL, ÉPM	Member of the jury for the comprehensive exam	20/09/12
Kamel Ayari	Automatic Generation of Test Data for DO-178B/ED-12B using Search-based Software Engineering Techniques	3rd	DGIGL, ÉPM	President of the jury for the comprehensive exam	6/02/09

Ségla Kpodjedo	Approximate Graph Matching and Applications in Software Engineering	3rd	DGIGL	President of the jury for the comprehensive exam	
Dominic Letarte	Static Analysis for the Evaluation of Security in Evolving Programs	3rd	DGIGL, ÉPM	Member of the jury for the comprehensive exam	24/04/08
Romain Pacanowski	Structures for Editing Lighting	3rd	DIRO, FAS	Member of the jury for the comprehensive exam	13/09/07
James Lapalme	Building a "Top Down" Solution to Model/Simulate Hardware Systems with Software Engineering Technologies	3rd	DIRO, FAS	Member of the jury for the comprehensive exam	29/08/06
Younés el Fakhar	Integrating Many Geographical Data Sources	3rd	DIRO, FAS	President of the jury for the comprehensive exam	19/02/06
Amal Zouaq	Managing Expertise and Knowledge in Organisation	3rd	DIRO, FAS	Member of the jury for the comprehensive exam	02/09/05
Ghazwa Malak	Models and Methods to Assess the Quality of Web Applications	3rd	DIRO, FAS	President of the jury for the comprehensive exam	01/04/05
El Hachemi Alikacem	Assessing Quality using Design Defect Detection in Object-oriented Programs	3rd	DIRO, FAS	President of the jury for the comprehensive exam	17/05/04

Mustapha Kamel Abdi	Change Impact Analysis	3rd	DIRO, FAS	Member of the jury for the comprehensive exam	29/04/04
Thi Lan Ahn Dinh	Metamodel to Manage Models	3rd	DIRO, FAS	Member of the jury for the comprehensive exam	18/12/03
					16 jurys

4. Teaching Methods

4.1. Teaching Methods

When supervising students, I make sure that they work in teams and with the state-of-the-practice tools, which are used in the industry: IDE, such as ECLIPSE, version repository, such as Git, test frameworks, such as JUNIT, and so on.

I implemented semester-long team projects in all my courses to show students a glimpse of the ways in which the industry work and related difficulties.

I implemented in all my graduate courses the writing of scientific articles, in teams of 2 to 4 students, to teach students about the rules and difficulties of working in teams, the different types of articles, and ethical rules.

4.2. Course Notes

- IFT2251/IFT2255 – "Software Engineering", I improved the notes prepared by my predecessor, Julie Vachon. I put on-line these course notes, the exercises and their corrections, the exams and their corrections. I prepared special classes on software quality and design patterns.

- IFT3902 – "Development, Maintenance of Software", I rebuilt the course notes using the material from my predecessor, François Lustman. I put on-line these course notes, the exercises and their corrections, the exams and their corrections.

- IFT3903 – "Software Quality and Metrics", I revised entirely the previous material from Houari Sahraoui. I added more than 50 new slides. I put on-line these course notes, the exercises and their corrections, the exams and their corrections.

- IFT3912 – "Development, Maintenance of Software", I revised entirely the content of course IFT3902, changing its description, to present both the basics of project management and methods and techniques for maintenance. These methods and techniques give the students the necessary knowledge to be ready for work in the industry and to evolve in their careers. Indeed, maintenance work is often the first type of job given to a new employee and maintaining/evolving software systems is now the main duty of professional software engineers.

- LOG4430/LOG8430 – "Software Architecture and Advanced Design", I entirely changed and developed the content of this course. In particular, I now present advanced concepts, including reflection, duct typing, generic types, design anti-patterns and code smells, pattern of distributed design, aspect-oriented programming. I make sure that my students leave the course with the solid bases in architecture, design, and programming that they will need to learn for/by themselves.

- LOG6306 – "Empirical Studies for Software Patterns", I created this course from scratch. I first present a theory about patterns, by using the characteristics of the

human visual system, and second the use of patterns, by describing several patterns with examples from sort algorithms. Then, I describe how to perform empirical studies, emphasising threats to validity and how to mitigate them. Finally, I present scales, measures, and their (mis)uses in empirical studies on software patterns.

4.3.   Program Committee

Between 2009 and 2013, I was member of the committee in charge of the software-engineering program at ÉPM. I have been responsible for this committee since 2013. In this committee, I led, among other activities:

- The evaluation of our program by the BCAPG in 2013.

- The renovation of our program following recommendations by the ACM.

- The introduction of the 12 qualities of the BCAPG in the program.

- The introduction of notions about sustainable development in the program.

- The conversion of the 4th year into a year of graduate studies.

- The creation of a joint Ph.D. program in software engineering with DIRO.

- The introduction of the systematic study of a large software system across the whole program.

5.   Teaching Improvement Activities

I participated to the following activities:

- Programme, "Initiation to Teaching Dynamics", CEFES, 2, 3 et 4 juin 2004.

- Discussion group, "How is my Class?" Formative Evalution of Class during the Semester, CEFES, 19 février 2004.

Thanks to these activities, since Winter 2004, I assess my classes in the middle of the semester to quickly correct any problems, if possible, and to improve the material and the method, next semester.

- Discussion group and creation of a template to assess the quality (form and content) of scientific articles for graduate students.

I also received subventions to improve teaching.

Title	Agency	Program	Amount	Start	End
Integration in the critical path of the SE curricula of active and innovative teaching methods using a large-size software system	Yann-Gaël Guéhéneuc and six others	$10,000 ($10,000/year)	S17	F17	
Development of active teaching activities by examples	Yann-Gaël Guéhéneuc and five others	$3,500 ($3,500/year)	S16	F16	
			0 submitted project(s) 2 funded projects for a total of $13,500		

Research

6. Research Projects

6.1. Funded Research Projects

Software Engineering

Title	Agency	Program	Amount	Start	End
Supporting Quality Improvements in Software Maintenance and Evolution	AUF	PRISA	$40,000 ($20,000/year)	S18	W20
Supporting Quality Improvements in Software Maintenance and Evolution	Foreign Affairs, Trade and Development	Canada-Brazil Awards: Joint Research Projects	$20,000 ($10,000/year)	S18	W20
Empirical Software Engineering for the IoT	Concordia	Startup Funds	$75,000	F17	H19
NSERC Day on Software Engineering for Cyber-physical Systems	NSERC	Connect Grant Level 2	$2,880 ($2,880/year)	W16	W16
Ptidej Tool Suite	KOSSA	OSS World Challenge	$3,000 ($3,000/year)	F15	F15
REUSE	Korea National Research and Development Projects	Team Project with Nam Yeong-kwang (Yonsei U.)	$30,000 ($6,000/year)	S14	F18
Service-oriented Archiectural Reengineering of Legacy OO Systems	FQRNT	Team Project with Ghizlane El Boussaidi (ÉTS), Hafedh Mili (UQÀM), Naouel Moha (UQÀM), Petko Valtchev (UQÀM)	$144,000 ($48,000/year)	S15	W18
Patterns in Multi-language Systems	NSERC	Canada Research Chair Tier 2	$500,000 ($100,000/year)	S14	H19
A Recommendation System for Managing the Configuration of Multi-tier Systems	FQRNT	Team Project with Bram Adams (DGIGL)	$126,000 ($42,000/year)	S13	W15

Building Practical Software Quality Models	NSERC	Discovery Grant	$204,000 ($34,000/year)	S12	W18
Software Patterns and Patterns of Software	NSERC	Canada Research Chair Tier 2	$500,000 ($100,000/year)	S09	W14
Software Patterns and Patterns of Software	CFI	Canada Research Chair Tier 2	103,280$ (20,656$/year)	S09	W10
Constraint-based Methods to Verify Mixed Software–Hardware Systems	FQRNT	Team Project with Gilles Pesant (DGIGL)	$168,900 ($56,300/year)	S09	W12
A Tool to Evaluate the Architectural Quality	Université de Montréal	VINCI	$6,720	S07	W08
Understanding the Impacts of Software Design Patterns and Design Defects	NSERC	Discovery Grant	$135,000 ($27,000/year)	S07	W12
Application of Bio-informatic Algorithms to Study and Analyse Software Evolution	FQRNT	Team Project with Sylvie Hamel (DIRO)	$155,000 ($47 000/year + $14 000 for hardware)	S07	W10
REMOOS Associate Team	INRIA	Team Project with Stéphane Ducasse (INRIA Lille) and Oscar Nierstrasz (IAM, Bern)	$36,570	W08	F08
Metrics for the Visualisation, Assessment, and Re-engineering of Object-oriented Programs	SNCF (France)	Team Project with Houari Sahraoui (DIRO)	$112,000	S07	F09
Tools to Improve Architectural Maintainability of Object-oriented Programs	NSERC	Discovery Grant	$74,100 ($24,700/year)	S04	W07
A Laboratory for Experimental Software Engineering to Evaluate Online Static Analyses and Program Understanding Techniques that Support Program Maintenance and Development	CFI	Infrastructure Project with Stefan Monnier (DIRO)	$362,140	F05	W06
Ptidej, A Tool-suite to Assess and Improve Software Quality by Promoting the Uses of Patterns	Université de Montréal	Startup Funds	$30,000 ($20 000 + $10 000 for a bursary)	F03	W06
				2 submitted project(s)	
			19 funded projects for a total of $2,828,590		

Software Engineering Applications

Title	Agency	Program	Amount	Start	End
Development, Optimisation, and Evaluation of a Digital Learning Environment for Reducing Cardiometabolic Risks	CIHR	Project with Sylvie Cossette and José Côté (Nursing Faculty)	270,200$ (90,066$/year)	S18	W21
Development, Optimisation, and Evaluation of a Digital Learning Environment for Reducing Cardiometabolic Risks – Study MA_SANTÉ@COEUR	Heart and Stroke Foundation of Canada	Project with Sylvie Cossette and José Côté (Nursing Faculty)	270,000$ (90,000$/year)	S18	W21
Development, Optimisation, and Evaluation of a Digital Learning Environment for Reducing Cardiometabolic Risks	IVADO	Fundamental Research Projects with Sylvie Cossette and José Côté (Nursing Faculty)	200,000$ (100,000$/year)	F17	F19
Development, Optimisation, and Evaluation of a Digital Adaptable Learning Environment for Reducing Cardiometabolic Risks	CIHR	Personalized Health – Catalyst Grant with Sylvie Cossette and José Côté (Nursing Faculty)	199,994$ (99,997$/year)	F17	F19
Applying Machine Learning Techniques to the Identification and Correction of Anomalies in Transaction Sale Data	MITACS	Accelerate with SAP	30,000$ (30,000$/year)	F17	S18
Web Tools for Health Professionals Working with People Living with the HIV to Help with Knowledge Transfer and Use	CIHR	Planning and Dissemination with José Côté (Nursing Faculty)	14,973$ (14,973$/year)	W15	F15
Evaluation of a Tailored Virtual Intervention as an Instrument of Prevention and Therapeutic Support to Improve the Health of PLHIV and Reduce Comorbidity associated with HIV	CIHR	Operating Grant with José Côté (Nursing Faculty)	421,224$ (140,408$/year)	F13	S16

ICD Management	NSERC	Collaborative Research and Development	$132,000 ($44,000/year)	S12	F16
ICD Managment	CRIAQ	Pre-competitive Research Project Agreement	114,000$ (38,000$/year)	S12	F16
Operationalizing Quality Evaluation for Heterogeneous Legacy Systems	MITACS with Castor Technologie	Accelerate	80,000$ (60,000 for six interns, $15,000/year)	W12	F15
Transfer of a Web application: from VIH-TAVIE to TRANSPLANT-TAVIE	CIHR	Knowledge Translation Supplement with José Côté (Nursing Faculty)	72,466$ (72,466$/year)	W12	F12
Mechanical Engineering v3.0: Peer Teaching, Material, and Didactic	Polytechnique Montréal	Teaching Support with Thomas Gervais (Mechanical Engineering)	10,000$ (3,333$/year)	E11	W13
VIH et prévention des co-morbidités : adapter et valider une intervention virtuelle visant à réduire les facteurs de risque liés aux maladies cardiovasculaires et au diabète chez les personnes vivant avec le VIH	CIHR	Catalyst Grant: HIV/AIDS and Co-morbidities with José Côté (Nursing Faculty)	99,956$ (99,956$/year)	W11	F11
Assessment of a Virtual Intervention (Web Application) to Improve Anti-retroviral Intake	FRSQ	Research in Population Health with José Côté (Nursing Faculty)	$229,160 ($76,386/year)	S08	W11
Efficacy of a Custom Intervention Program to Improve Anti-retroviral Intake	FQRSC	Team Project with José Côté (Nursing Faculty)	$150,000 ($75,000/year)	S07	W09
Computer Support to Assess the Improvement to the Behaviour of People living with a long-term Disease	FRSQ – AIDS Network	Team Project with José Côté (Nursing Faculty)	$15,000	F05	S06

4 submitted project(s)

10 funded projects for a total of $2,228,974

6.2. Travel Funds

Title	Agency	Program	Amount	Start	End
Empirical Studies and Revalorisation of Software Evolution when Teaching Computer Science	Ministère des Relations internationales	VIIe Commission mixte permanente Québec/Wallonie-Bruxelles 2011-2013	10,000$	A11	E13
Naouel Moha's Ph.D. Defense	Crédits BQR – Internationalisation de la recherche, Université de Lille	Refund of Travel Costs to Montreal	$2,215	W08	S08
Detection and Correction of Design Defects	Foreign Affairs and International Trade Canada	Refund of Travel Costs to the WBT Showcase	$495	S07	S07
Towards a Domain-specific Language to Suggest Corrections to Design Defects	INRIA–FQRNT	Team Project with Laurence Duchien et Anne-Francoise Le Meur (INRIA Futurs ADAM)	$12,000 ($1 000/months + $850 for travel expenses)	F07	W08
Invited Professor	Égide	Team Project with Laurence Duchien et Anne-Francoise Le Meur (INRIA Futurs ADAM)	$4,400	W07	W07
0 submitted project(s) 5 funded projects for a total of $29,110					

7. Significant Contributions

Design Patterns and their Impact on Source Code. I set a landmark in design pattern identification by developing tools that automatically handle variations in the patterns and programs and explain their findings. These tools were the first use of explanation-based constraint programming in software engineering. They attracted many researchers' attention and led to a publication in IEEE Transactions on Software Engineering (TSE) [56]. I also used metrics to improve the time and space efficiency of the identification process [49]. I was the first to tackle the identification of behavioural and creational patterns [54]. I also developed a bioinformatics-inspired bit-vector algorithm to handle very large programs efficiently in space and time [50]. Using this previous work, I was the first to study the impact on classes of playing roles in design patterns on their change and fault proneness to help developers make informed design choices [3, 134, 139, 143]. I also participated in a common effort in the community to exchange data among tools [130] as well as to recommend design patterns. This work forms the basis from which stem my other research contributions as well as my interest in studying patterns in simultaneous mixed-language software systems. I also studied the impact of dependencies on design patterns on changes and faults [23, 31].

Design Antipatterns and their Impact on Source Code. Code smells and design antipatterns (*antipatterns* in the following) are "opposite" to design patterns, *i.e.*, "poor" implementation and design choices. I proposed the first method to specify systematically and detect automatically antipatterns [48, 145], which was published in IEEE TSE [52]. This work interested companies that evaluate our tools to assess their software quality in France (SNCF) [47] and in Canada (Benchmark Consulting, Integratik, and SAP). I was the first to investigate other techniques to detect antipatterns: Bayesian Beliefs Networks [45, 135], metrics [129], and artificial immune systems [122], which improved precision and recall values. Thanks to our tools, I was also the first to show empirically the negative impact of antipatterns on change and fault proneness [42, 133] and on program comprehension [119] (best paper at the IEEE Conference of Software Maintenance and Reengineering (CSMR), 2011) and study the correction [123, 146] and evolution [131] of antipatterns. I was also the first to use support-vector machines to model and identify occurrences of antipatterns and take into account the developers' feedback to improve the precision and recall of the identification [100, 105]. I broaden my research to SOA antipatterns [33].

Patterns and their Impact on Developers. I set up in 2009-2010 a unique laboratory for experimental software engineering, with a state-of-the-art eye-tracking system. I developed a theory linking vision science and program comprehension [55] and performed the first studies on the developers' use of design patterns and related notations [51, 132], which showed surprising results and led to many fruitful discussions in the community and a working session at the IEEE International Conference on Program Comprehension (ICPC), 2009. Since then, I developed a novel tool to analyse eye-tracking data [43] and performed studies showing that professional status and expertise are quite orthogonal when it comes to

software developers [107], that female developers understand programs differently and better than their male counterparts [106], and that developers follow different strategies when understanding different pieces of code [87, 88]. I also showed that notations impact program understanding [51, 90], which calls for future work on the impact of patterns on developers, in particular in software systems composed of a variety of heterogeneous components, such as simultaneous mixed-language software systems. I also surveyed systematically the literature on eye-tracking in software engineering [24].

Identifier Traces and their Use to Developers. My previous work was mostly based on static analyses of the source code of software systems. Yet, execution traces are also an important source of information. I proposed one of the first approaches to identify occurrences of behavioural and creational design patterns in execution traces [54]. While developing this approach, I faced two problems: the size of execution traces and the mix of multiple concerns, *e.g.*, mouse events are mixed with file accesses. Therefore, to improve future analyses, I pursued two directions. First, I proposed approaches to split execution traces into feature-implementing calls [124, 128], to locate cohesive segments in traces efficiently [112], and to label and relate these segments [98] (best paper at CSMR, 2012). In parallel, because segments are labelled using the identifiers naming the called methods, I proposed approaches to split and expand identifiers [37, 44, 99], studied identifier renaming [118], and introduced the concept of linguistic antipatterns [92, 97]. The introduction of this concept led to a publication in IEEE TSE [32] because identifiers are often the unique, up-to-date source of semantic information available to developers and, thus, must be carefully chosen and maintained to ease their program comprehension.

Feature and APIs and their Traceability to Requirements. Features are user-observable functionalities of a system, corresponding to requirements implemented in the source code. Application Programming Interfaces (APIs) describe the classes and methods implementing these features. I developed a trace-based technique to identify features more precisely than previous techniques, which was the best paper at the IEEE International Conference on Software Maintenance (ICSM), 2005, and which I formalised with an epidemiological metaphor published in IEEE TSE in 2006. I further improved this technique using Latent Semantic Indexing, which was the best paper at IEEE ICPC, 2006, and which I expanded into another article in IEEE TSE in 2007. I also worked on tracing requirements into source code [116, 142] to improve the precision and recall over previous work, on assessing the cost of (re)implementing requirements [140], on recovering requirements from source code [137], and on miniaturising programs while satisfying important requirements [115]. I also proposed an original improvement to bug location (a form of feature) using binary-class relationships [103]. I also mined software repositories to further improve feature identification [38]. This last work was published in IEEE TSE in 2012 thanks to its novel use of a Web-trust model. I also studied the evolution of APIs [26] and their changes and usages in large ecosystems [20].

8. Publications

Students names are in bold. I always take an active part of the research work, software development, and writing of any article.

8.1. Proceedings and Books

[1] Yann-Gaël Guéhéneuc and Gi hwon Kwon, editors. *Proceedings of the 21th Asia-Pacific Software Engineering Conference.* IEEE CS Press, December 2014.

[2] Yann-Gaël Guéhéneuc and Tom Mens, editors. *Proceedings of the 29th International Conference on Software Maintenance.* IEEE CS Press, September 2013.

[3] Yann-Gaël Guéhéneuc. *Un cadre pour la traçabilité des motifs de conception.* Éditions universitaires européennes, 360 pages. June 2010. ISBN : 978-613-1-50950-6.

[4] Serge Demeyer, Kim Mens, Roel Wuyts, Yann-Gaël Guéhéneuc, Andy Zaidman, Neil Walkinshaw, Ademar Aguiar, and Stéphane Ducasse, editors. *Report of the 6th international Workshop on Object-Oriented Reengineering (WOOR).* Springer-Verlag, 12 pages. July 2005.

8.2. Book Chapters

[5] Yann-Gaël Guéhéneuc, Gi hwon Kwon, and Pornsiri Muenchaisri. *Guest Editorial: Special Section with the Extensions to the Best Papers from APSEC'13 and APSEC'14*, volume 74, chapter 1, pages 181–182. Elsevier, 2 pages. June 2016. (CRC on Software Patterns)

[6] Yann-Gaël Guéhéneuc and Tom Mens. *Guest Editorial: Introduction to the Special Issue on Software Maintenance and Evolution Research*, volume 20, chapter 1, pages 1193–1197. Springer, 4 pages. February 2015. (CRC on Software Patterns)

[7] **Foutse Khomh**, Yann-Gaël Guéhéneuc, Giuliano Antoniol et Massimiliano Di Penta. *Modèles de qualité et conception des programmes*, chapitre 3, pages 85–116. Éditions Lavoisier, Hermes Science. Traité IC2, série Informatique et Systèmes d'Information. 32 pages. avril 2014. (NSERC DG)

[8] **Nasir Ali**, Yann-Gaël Guéhéneuc, and Giuliano Antoniol. *Factors Impacting the Inputs of Traceability Recovery Approaches*, chapter 7, pages 99–127. Springer, 28 pages. September 2012. (NSERC DG and CRC on Software Patterns)

[9] Yann-Gaël Guéhéneuc. *Design Patterns: Empirical Studies on the Impact of Design Patterns on Quality*, chapter 19, pages 204–219. Taylor and Francis Group, 16 pages. September 2010. (NSERC DG and CRC on Software Patterns)

[10] Tom Mens, Yann-Gaël Guéhéneuc, Juan Fernandez-Ramil, and Maja D'Hondt. *Guest Editorial: Software Evolution*, volume 27, chapter 1, pages 22–25. IEEE CS Press, 4 pages. July–August 2010. (CRC on Software Patterns)

[11] Luc Charest, Yann-Gaël Guéhéneuc, and **Yousra Tagmouti**. *Translating Design Pattern Concepts to Hardware Concepts*, chapter 4, pages 93–118. CRC Press, 25 pages. September 2009. (NSERC DG and CRC on Software Patterns)

[12] **Khashayar Khosravi** and Yann-Gaël Guéhéneuc. *On Issues with Software Quality Models*, chapter 11, pages 218–235. ICFAI University Press, 28 pages. January 2008. (NSERC DG)

[13] Yann-Gaël Guéhéneuc, **Jean-Yves Guyomarc'h**, **Khashayar Khosravi**, and Houari Sahraoui. *Design Patterns as Laws of Quality*, chapter 5, pages 105–142. Idea Group, 35 pages. January 2006. (NSERC DG and Start-up fund)

8.3.   Journal Articles

Referred Journal Articles

[14] **Aminata Sabané**, Yann-Gaël Guéhéneuc, **Venera Arnaoudova**, and Giuliano Antoniol. Fragile Base-class Problem, Problem? In Mika V. Mäntylä, Magne Jørgensen, Paul Ralph, and Hakan Erdogmus, editors, *Journal of Empirical Software Engineering (EMSE)*, 22(5):2612–2657. Springer, Special issue on negative results. 46 pages. October 2017. (NSERC DG and CRC on Software Patterns)

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[230] Hervé Albin-Amiot and Yann-Gaël Guéhéneuc. Meta-Modeling Design Patterns: Application to Pattern Detection and Code Synthesis. In Pim van den Broek, Pavel Hruby, Motoshi Saeki, Gerson Sunyé, and Bedir Tekinerdogan, editors, *Proceedings of the 1st ECOOP workshop on Automating Object-Oriented Software Development Methods (AOOSDM)*, pages 20–27. Centre for Telematics and Information Technology, University of Twente, TR-CTIT-01-35. 8 pages. October 2001. (Object Technology International, Inc.)

[231] Hervé Albin-Amiot and Yann-Gaël Guéhéneuc. Design Patterns Application: Pure-generative Approach vs. Conservative-generative Approach. In Krzysztof Czarnecki, editor, *Proceedings of the 1st OOPSLA workshop on Generative Programming (GP)*, page N/A. N/A, 3 pages. October 2001. (Object Technology International, Inc.)

[232] Yann-Gaël Guéhéneuc and Narendra Jussien. Using Explanations for Design-Patterns Identification. In Christian Bessière, editor, *Proceedings of the 1ˢᵗ IJCAI Workshop on Modeling and Solving Problems with Constraints (WMSPC)*, pages 57–64. AAAI Press, 8 pages. August 2001. (Object Technology International, Inc.)

[233] Hervé Albin-Amiot and Yann-Gaël Guéhéneuc. Design Patterns: A Round-Trip. In Gilles Ardourel, Michael Haupt, Jose Luis Herrero Agustin, Rainer Ruggaber, and Charles Suscheck, editors, *Proceedings of the 11ᵗʰ ECOOP workshop for Ph.D. Students in Object-Oriented Systems (PHDOOS)*, page N/A. N/A, 10 pages. June 2001. (Object Technology International, Inc.)

8.5. Technical Reports

[234] **Wei Wu**, Yann-Gaël Guéhéneuc, Giuliano Antoniol, and Miryung Kim. Halo: A Multi-feature Two-pass Analysis to Identify Framework API Evolution. Technical report EPM-RT-2013-05, École Polytechnique de Montréal, 24 pages. June 2013. (CRC on Software Patterns)

[235] **Zéphyrin Soh** and Yann-Gaël Guéhéneuc. Towards the exploration strategies by mining Mylyn's interaction histories. Technical report EPM-RT-2013-01, École Polytechnique de Montréal, 24 pages. February 2013. (CRC on Software Patterns)

[236] **Etienne Duclos**, Yann-Gaël Guéhéneuc, and Sébastien Le Digabel. ACRE: An Automated Aspect Creator for Testing C++ Applications. Technical report G-2012-19, Les cahiers du GERAD, 17 pages. June 2012. (CRC on Software Patterns)

[237] **Foutse Khomh**, **Naouel Moha** et Yann-Gaël Guéhéneuc. DEQUALITE : méthode de construction de modèles de qualité prenant en compte la conception des systèmes. Rapport technique EPM-RT-2009-04, École Polytechnique de Montréal, 31 pages. avril 2009. (NSERC DG)

[238] **Foutse Khomh**, Yann-Gaël Guéhéneuc, and Guiliano Antoniol. An Empirical Descriptive and Analytic Study of Playing Roles in Design Patterns. Technical report EPM-RT-2009-03, École Polytechnique de Montréal, 15 pages. April 2009. (NSERC DG)

[239] **Foutse Khomh**, Massimiliano Di Penta, Yann-Gaël Guéhéneuc, and Guiliano Antoniol. An Exploratory Study of the Impact of Antipatterns on Software Changeability. Technical report EPM-RT-2009-02, École Polytechnique de Montréal, 15 pages. April 2009. (NSERC DG)

[240] **Simon Denier**, **Foutse Khomh**, and Yann-Gaël Guéhéneuc. Reverse-Engineering the Literature on Design Patterns and Reverse-Engineering. Technical report EPM-RT-2008-09, DGIGL, École Polytechnique Montréal, 18 pages. October 2008. (NSERC DG)

[241] **Foutse Khomh** and Yann-Gaël Guéhéneuc. An Empirical Study of Design Patterns and Software Quality. Technical report 1315, University of Montreal, 44 pages. january 2008. (NSERC DG)

[242] Yann-Gaël Guéhéneuc. A Theory of Program Comprehension – Joining Vision Science and Program Comprehension. Technical report 1267, University of Montreal, 26 pages. December 2005. (CFI project 10363)

[243] **Khashayar Khosravi** and Yann-Gaël Guéhéneuc. A Quality Model for Design Patterns. Technical report 1249, University of Montreal, 94 pages. September 2004. (NSERC DG)

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[245] Aline Lúcia Baroni, Yann-Gaël Guéhéneuc, and Hervé Albin-Amiot. Design Patterns Formalization. Technical report 03/03/INFO, Computer Science Department, École des Mines de Nantes, 59 pages. June 2003. (IBM Eclipse Fellowship)

[246] Yann-Gaël Guéhéneuc, Hervé Albin-Amiot, Rémi Douence, and Pierre Cointe. Bridging the Gap Between Modeling and Programming Languages. Technical report 02/09/INFO, Computer Science Department, École des Mines de Nantes, 56 pages. July 2002. (Object Technology International, Inc.)

[247] Yann-Gaël Guéhéneuc, Rémi Douence, and Narendra Jussien. No Java Without Caffeine – A Tool for Dynamic Analysis of Java Programs. Technical report 02/07/INFO, Computer Science Department, École des Mines de Nantes, 16 pages. May 2002. (Object Technology International, Inc.)

[248] Yann-Gaël Guéhéneuc. Syntax-error Recovery in Interactive Environments. Thèse de maîtrise, École des Mines de Nantes et Université de Nantes, (Diplôme d'études approfondies) septembre 1998.

8.6. Tool Demonstrations

[249] **Abdelilah Sakti**, Gilles Pesant, and Yann-Gaël Guéhéneuc. JTExpert at the Fifth Unit Testing Tool Competition, Tool demo at the 10th ICSE International Workshop on Search-Based Software Testing. 4 pages. May 2017. (NSERC DG and FRQ-NT team grant)

[250] **Abdelilah Sakti**, Gilles Pesant, and Yann-Gaël Guéhéneuc. JTExpert at the Fourth Unit Testing Tool Competition, Tool demo at the 9th ICSE International Workshop on Search-Based Software Testing. 4 pages. May 2016. (NSERC DG and FRQ-NT team grant)

[251] **Abdelilah Sakti**, Gilles Pesant, and Yann-Gaël Guéhéneuc. JTExpert at the Third Unit Testing Tool Competition, Tool demo at the 8th ICSE International Workshop on Search-Based Software Testing. 4 pages. May 2015. (NSERC DG and FRQ-NT team grant)

[252] **Wei Wu**, Bram Adams, Yann-Gaël Guéhéneuc, and Giuliano Antoniol. ACUA: API Change and Usage Auditor, Tool demo at the 14th International Working Conference on Source Code Analysis and Manipulation. 6 pages. September 2014. (CRC on Software Patterns)

[253] **Mathieu Nayrolles**, **Francis Palma**, Naouel Moha, and Yann-Gaël Guéhéneuc. Soda: A Tool Support for the Detection of SOA Antipatterns, Tool demo at the 11th International Conference on Service Oriented Computing. 4 pages. November 2012. (CRC on Software Patterns)

[254] **Naouel Moha** and Yann-Gaël Guéhéneuc. PTIDEJ and DECOR: Identification of Design Patterns and Design Defects, SATToSE: Seminar on Advanced Tools and Techniques for Software Evolution, Waulsort, Belgium. February 2008. (NSERC DG)

[255] **Naouel Moha** and Yann-Gaël Guéhéneuc. PTIDEJ and DECOR: Identification of Design Patterns and Design Defects, Tool demo at the 22nd International Conference on Automated Software Engineering. November 2007. (NSERC DG)

[256] **Naouel Moha** and Yann-Gaël Guéhéneuc. PTIDEJ and DECOR: Identification of Design Patterns and Design Defects, Tool demo at the 21st International Conference on Object-Oriented Programming, Systems, Languages and Applications. October 2007. (NSERC DG)

[257] Yann-Gaël Guéhéneuc. PTIDEJ: A Flexible Reverse Engineering Tool Suite, Tool demo at the 23rd International Conference on Software Maintenance. October 2007. (NSERC DG)

[258] Yann-Gaël Guéhéneuc. PTIDEJ - A Tool Suite, Tool demo at the 5th World's Best Technologies Showcase. May 2007. (NSERC DG)

[259] Yann-Gaël Guéhéneuc. Design Pattern Identification in PTIDEJ, Tool demo at GRAS-COMP Graduate School in Computing Science 2007 (COMP013). March 2007. (INRIA mobility grant)

[260] **Naouel Moha** and Yann-Gaël Guéhéneuc. DECOR and PTIDEJ, Tool demo at the 16th IBM Centers for Advanced Studies Conference. October 2006. (NSERC DG)

[261] Yann-Gaël Guéhéneuc, **Jean-Yves Guyomarc'h**, **Duc-Loc Huynh**, **Olivier Kaczor**, **Naouel Moha**, and **Samah Rached**. PTIDEJ - A Tool Suite, Tool demo at the 15th IBM Centers for Advanced Studies Conference. October 2005. (NSERC DG)

9. Software Systems

[262] Yann-Gaël Guéhéneuc. Taupe, A tool to edit, visualise, and analyse the data collected by eye-trackers during experiments. since June 2006.

[263] Yann-Gaël Guéhéneuc. P-MARt, A database of occurrences of patterns in object-oriented programs. since November 2004.

[264] Yann-Gaël Guéhéneuc. Caffeine, A tool to analyse Java programs dynamically. since May 2002.

[265] Yann-Gaël Guéhéneuc. Ptidej, A tool suite to evaluate and to enhance the quality of object-oriented programs. since July 2001.

[266] Yann-Gaël Guéhéneuc. PADL, A meta-model (and parsers) to represent and to manipulate object-oriented programs and design motifs. since July 1999.

Administrative Work

10. Organisation

10.1. Department, Faculty, or Research Center

- Member of the Departmental Hiring Committee of DGIGL, year 2015.

- Member of the Committee for the Nomination of the Departmental Director of DGIGL, year 2015.

- Chair of the Departmental Program Committee in Software Engineering of DGIGL, years 2013–2017.

- Founder and Chair of the PolyMORSE research group of ÉPM, years 2013–2017.

- Member of the Departmental Hiring Committee of DGIGL, year 2011–2012.

- Member of the Departmental Program Committee in Software Engineering of DGIGL, years 2009–2013.

- Member of the Departmental Publicity Committee of DGIGL, years 2009–2010.

- Member of the Departmental Strategic Committee of DGIGL, year 2010.

- In charge of the 3rd and 4th years in software engineering of DGIGL, years 2008–2009.

- Chair of the Promotion Committee of DIRO, years 2006–2008.

- Chair of the Software Engineering Compulsory Exam Committee of DIRO, years 2006–2008.

- Member of the Promotion Committee of DIRO, years 2005–2006.

- Member of the Promotion Committee of DIRO, years 2004–2005.

- Member of the Compulsory Exam Committee of DIRO, years 2003–2004.

10.2. University

- Member of the Committee for the Nomination of the General Director of ÉPM, year 2014.

11. Other Administrative Duties

12. Negotiation Activities

Promotion of the University

13.   Scientific and Professional Events

13.1.   Grant Evaluation Committees

Member of the committees to evaluate grant applications:

- Member of the Computer Science Evaluation Group for NSERC (1507), 09/2012–04/2017.

- Member of the MITACS College of Reviewers, 09-2014–08/2015.

13.2.   Steering Committees

Member of the steering committees:

- of the *International Conference on Software Analysis, Evolution, and Reengineering* (SANER), from 6/03/15 to 5/03/18.

- of the *International Conference on Program Comprehension* (ICPC), from 23/06/11 to 22/06/13.

13.3.   Organisation Committees

Chair of the organisation committees:

- of the *International Conference on Software Analysis, Evolution, and Reengineering* (SANER), 2015, from 3/03/14 to 9/09/15.

- of the *First Canadian Summer School on Practical Analyses of Software Engineering Data* , 2011, from 16/06/11 to 20/06/11.

- of the *Conférence sur les Architectures Logicielles* et *Langages et Modèles à Objets*, 2008, from 3/03/08 to 7/03/08.

- Co-founder and membre of the *Montreal Software Analysis Research Talks*, 14/05/07.

Member of the organisation committees:

- of the international workshop *Patterns Promotion and Anti-patterns Prevention* at SANER, 2017.

- of the international workshop *Patterns Promotion and Anti-patterns Prevention* at SANER, 2016.

- of the international workshop *Patterns Promotion and Anti-patterns Prevention* at SANER, 2015.

- of the international workshop *Patterns Promotion and Anti-patterns Prevention* at CSMR, 2013.

- of the *International Conference on Software Testing* (ICST), 2012, local arrangement chair.

- of the tool demonstration track, at ICSM, 2010.

- of the *Computer Software and Applications Conference* (COMPSAC), 2010, in charge of a research track.

- of the international conference *Working Conference on Reverse Engineering* (WCRE), 2009, workshop chair.

- of the international conference *Information Security and Assurance*, 2008.

- of the international workshop *Qualitative Approaches in Object Oriented Software Engineering* at ECOOP, 2007.

- of the international workshop *Workshop on Object Oriented Reengineering* at ECOOP, 2007.

- of the international conference *European Conference on Object Oriented Programming* à ECOOP, 2006, student-volunteer chair (27 student).

- of the international workshop *Qualitative Approaches in Object Oriented Software Engineering* at ECOOP, 2006.

- of the international workshop *Workshop on Object Oriented Reengineering* at ECOOP, 2006.

- of the international workshop *Design Pattern Detection for Re-engineering* at WCRE, 2006.

- of the international workshop *International Workshop on Design Pattern Theory and Practice*, at ICSM, 2005.

13.4. Program Committees

Chair or co-chair of the program committees:

- of the 21^e *Asia-Pacific Software Engineering Conference* (APSEC), 2014.

- of the 29^e *International Conference on Software Maintenance* (ICSM), 2013.

- of the ERA track at the 28^e *International Conference on Software Maintenance* (ICSM), 2012.

Member of the editorial boards:

- Guest editor for a special section of *Elsevier IST* with the extensions to the best papers from APSEC'13 and APSEC'14, 2016.

- Guest editor for a special issue of *Springer EMSE* on software maintenance and evolution research, 2015.

- Guest editor for a special issue of *IEEE Software* on software evolution, 2010.

- *The Open Software Engineering Journal* (OSEJ), 2009.

- *International Journal of Software Engineering and Its Applications* (IJSEIA), 2007.

Member of the review boards:

- *Springer EMSE*, 2014–2015, 2015–2016.

Yann-Gaël Guéhéneuc

Member of the program committees of the conferences:

Name	Acronym	Year(s)	Comments
Asian Conference on Pattern Languages of Programs	AsianPLoP	2010, 2011, 2014, 2015	
Computer Software and Applications Conference	COMPSAC	2010	
Conference on Software Maintenance and Reengineering	CSMR	2010, 2011, 2012, 2013, 2014	
Conference on Software Maintenance and Reengineering	CSMR	2007	*Tool Track*
European Conference on Patterns	EuroPLoP	2009	
Foundations of Software Engineering	FSE	2016	
Foundations of Software Engineering	FSE	2010	Demonstrations
Genetic and Evolutionary Computation Conference	GECCO	2011, 2012	
International Conference on Program Comprehension	ICPC	2007, 2008, 2009, 2010, 2011, 2016, 2017	
International Conference on Software Engineering	ICSE	2017	*NIER Track*
International Conference on Software (and Evolution)	ICSM(E)	2010, 2014, 2015, 2016	*ERA Track*
International Conference on Software (and Evolution)	ICSM(E)	2007, 2008, 2009, 2011, 2012	
International Conference on Software Maintenance	ICSOFT	2007, 2008, 2009	
International Conference on Software Testing	ICST	2011	
International Conference on Software Testing	ICST	2011	*Industry Track*
Information Security and Assurance	ISA	2008	
Journées Francophone sur le Développement de Logiciels Par Aspects	JFDLPA	2007	
Langages et Modèles à Objets	LMO	2005, 2006, 2007, 2008, 2010	
Mining Software Repository	MSR	2008	
Pervasive Patterns and Applications	PATTERNS	2010, 2011, 2012	

Quality Software International Conference	QSIC	2010, 2011	
Symposium on Search Based Software Engineering	SSBSE	2011	
Working Conference on Reverse Engineering	WCRE	2007, 2008, 2009, 2010, 2011, 2012	

Yann-Gaël Guéhéneuc

Member of the program committee of the workshops:

Name	Acronym	Parent Conference	Acronym	Year(s)
Building Systems Using Patterns	BSUP	*Object Oriented Programming, Systems, Languages, and Applications*	OOPSLA	2007
FAMIX and Moose in Reengineering	FAMOOSr	*Working Conference on Reverse Engineering*	WCRE	2008, 2009
International Workshop on Principles of Software Evolution/ERCIM Workshop on Software Evolution	IWPSE/EVOL	*European Software Engineering Conference/Symposium on the Foundations of Software Engineering Automated Software Engineering*	ESEC/FSE, ASE	2009, 2010, 2011
International Workshop on Data-intensive Software Management and Mining	DSMM	*Conference on Information and Knowledge Management*	CIKM	2009
International Workshop on Software Patterns and Quality	SPAQu	*Asia Pacific Software Engineering Conference*	APSEC	2007, 2008
International Workshop on Traceability in Emerging Forms of Software Engineering	TEFSE	*International Conference on Software Engineering*	ICSE	2009, 2011
Machine Learning and Information Retrieval in Software Engineering	MALIR-SE	*International Conference on Automated Software Engineering*	ASE	2013
Pattern Languages: Addressing the Challenges	PLAC	*Object Oriented Programming, Systems, Languages, and Applications*	OOPSLA	2007
Qualité des modèles de conception	QMC	*Langages, Modèles et Objets*	LMO	2007
Workshop on Advanced Software Development Tools and Techniques	WASDeTT	*European Conference on Object Oriented Programming*	ECOOP	2008
Workshop on Architecture Centric Evolution	WACE	*European Conference on Object Oriented Programming*	ECOOP	2006

Workshop on Quantitative-based Evaluation, Visualization, and Refactoring	QEVR	Conference on the Unified Modeling Language	UML	2004

13.5. Reviews

Books:

- *CRC Press*

  – 1 book proposal in 2014.

- *John Willey & Sons*

  – 1 book proposal in 2009.

- *Springer*

  – 1 book proposal in 2008.

Chapters:

- Hermès *Évolution et rénovation des systèmes logiciels*

  – 1 chapter in 2011.

- Springer *Software and Systems Traceability*

  – 1 chapter in 2011.

- IGI Global *Object-Oriented Design Knowledge: Principles, Heuristics, Best Practices*

  – 2 chapters en 2005.

Journals:

- *ACM Surveys*

  – 1 article in 2012.
  – 1 article in 2010.

- *Journal of Automated Software Engineering* (JASE)

  – 2 articles in 2012.
  – 1 article in 2011.
  – 1 article in 2004.
  – 1 article in 2003.

- *Electronic Communications of the European Association of Software Science and Technology (ECEASST)*

  – 4 articles in 2013.

- *Journal of Empirical Software and Systems* (EMSE)

  - 3 articles in 2016.
  - 3 articles in 2014.
  - 1 article in 2013.
  - 3 articles in 2012.
  - 3 articles in 2011.
  - 3 articles in 2010.
  - 1 article in 2009.
  - 1 article in 2008.
  - 1 article in 2006.

- *IBM Journal of R&D* (IJRD)

  - 1 article in 2008.

- *IEEE Software*

  - 1 article in 2012.

- *IET Software*

  - de 1 article en 2013.
  - de 1 article en 2012.

- *International Journal of Software Engineering and Its Applications* (IJSEIA)

  - 1 article in 2012.
  - 2 articles in 2010.
  - 2 articles in 2007.

- *Information and Software Technology* (IST)

  - 1 articles in 2016.
  - 2 articles in 2015.
  - 1 articles in 2014.
  - 2 articles in 2012.
  - 3 articles in 2011.
  - 2 articles in 2010.
  - 1 article in 2008.

  – 1 article in 2007.
  – 2 articles in 2006.
  – 1 article in 2004.

- *Journal of Eye Movement Research* (JEMR)

  – 1 article in 2016.

- *International Journal of Information Technology* (JIT)

  – 1 article in 2005.

- *Journal of Object-oriented Technology* (JOT)

  – 1 article in 2016.
  – 1 article in 2015.
  – 1 article in 2012.
  – 1 article in 2010.

- *Journal of Software Maintenance and Evolution* (JSME) et *Journal of Software: Evolution and Process* (JSEP)

  – 1 articles en 2016.
  – 3 articles en 2011.
  – 1 article in 2010.
  – 1 article in 2009.
  – 1 article in 2008.
  – 2 articles in 2007.

- *Journal of Software and Systems* (JSS)

  – 1 articles in 2013.
  – 8 articles in 2012.
  – 7 articles in 2011.
  – 2 articles in 2010.
  – 2 articles in 2009.

- *Science of Computer Programming* (SCP)

  – 1 article in 2014.
  – 2 articles in 2012.

- 3 articles in 2011.
- 1 article in 2009.

- *Software and Systems Modeling* (SoSym)

  - 1 article in 2012.

- *Software: Practice and Experience* (SPE)

  - 1 article in 2012.

- *Software Quality Journal* (SQJ)

  - 1 article in 2016.
  - 1 article in 2015.
  - 1 article in 2014.
  - 2 articles in 2013.
  - 1 article in 2009.

- *Transactions on Software Engineering and Methodology* (TOSEM)

  - 1 article in 2015.
  - 1 article in 2013.
  - 1 article in 2012.
  - 1 article in 2011.
  - 2 articles in 2010.
  - 1 article in 2009.

- *Transaction on Software Engineering* (TSE)

  - 1 article in 2016.
  - 3 articles in 2014.
  - 1 article in 2013.
  - 2 articles in 2012.
  - 1 article in 2011.
  - 1 article in 2010.
  - 1 article in 2009.
  - 2 articles in 2008.
  - 1 article in 2007.
  - 1 article in 2006.

– 1 article in 2004.

Conferences and workshops:

- *International Conference on Artificial Intelligence in Education* (AEID)

    – 1 article in 2007.

- *Automated Software Engineering* (ASE)

    – 6 article in 2005.
    – 5 article in 2004.

- *Asian Conference on Pattern Languages of Programs* (AsianPLoP)

    – 1 articles in 2011.
    – 1 article in 2010.

- *Colloque Africain sur la Recherche en Informatique* (CARI)

    – 3 articles in 2006.

- *Computer Software and Applications Conference* (COMPSAC)

    – 7 articles in 2010.

- *Conference on Software Maintenance and Reengineering* (CSMR)

    – 6 articles in 2012.
    – 3 articles in 2011.
    – 4 articles in 2010.

- *Conference on Software Maintenance and Reengineering* (CSMR) – *European Projects Track* (EP)

    – 4 articles in 2009.

- *Conference on Software Maintenance and Reengineering* (CSMR) – *Tool Track*

    – 3 articles in 2009.

- *International Workshop on Data-intensive Software Management and Mining* (DSMM)

    – 2 articles in 2009.

- *European Conference on Object Oriented Programming* (ECOOP)

    – 1 article in 2013.

- *European Conference on Patterns* (EuroPLoP)

  – 1 article in 2009.

- *FAMIX and Moose in Reengineering* (FAMOOSr)

  – 3 articles in 2009.
  – 1 article in 2008.

- *Foundations of Software Engineering* (FSE)

  – 18 articles in 2016.

- *Genetic and Evolutionary Computation Conference* (GECCO)

  – 1 article in 2012.
  – 4 articles in 2011.

- *International Conference on Program Comprehension* (ICPC)

  – 4 articles in 2016.
  – 7 articles in 2011.
  – 4 articles in 2010.
  – 5 articles in 2009.
  – 4 articles in 2008.
  – 5 articles in 2007.

- *International Conference on Software Engineering* (ICSE)

  – 1 article in 2011.

- *International Conference on Software Engineering* (ICSE) – *NIER Track*

  – 7 articles in 2017.

- *International Conference on Software Maintenance* (ICSM) – *Early Research Achievements* (ERA)

  – 4 articles in 2016.
  – 1 article in 2015.
  – 6 articles in 2010.

- *International Conference on Software Maintenance (and Evolution)* (ICSM(E))

  – 8 articles in 2012.

- 5 articles in 2011.
- 7 articles in 2009.
- 6 articles in 2008.
- 8 articles in 2007.

- *International Conference on Software* (ICSOFT)

  - 3 articles in 2008.
  - 3 articles in 2007.

- *International Conference on Software Testing* (ICST)

  - 5 articles in 2011.

- *International Conference on Software Testing* (ICST) – Industrial Track

  - 3 articles in 2011.

- *Information Security and Assurance* (ISA)

  - ? articles in 2008.

- *International Symposium on Programming and Systems* (ISPS)

  - 1 article in 2005.

- *International Workshop on Principles of Software Evolution* (IWPSE) and *Workshop on Software Evolution* (EVOL)

  - 4 articles in 2011.
  - 4 articles in 2010.
  - 3 articles in 2009.

- *Journées Francophone sur le Développement de Logiciels Par Aspects* (JFDLPA)

  - 2 articles in 2007.

- au colloque international francophone *Langages et Modèles à Objets* (LMO)

  - 2 articles in 2010.
  - 5 articles in 2008.
  - 2 articles in 2007.
  - 3 articles in 2006.
  - 3 articles in 2005.

– 2 articles in 2004.

- *Manifestation des Jeunes Chercheurs en Sciences et Technologies de l'Information et de la Communication* (Majecstic)

    – 3 articles in 2012.

- *International Workshop on Aspect-oriented Meta-Modeling* (Meta-Aspect)

    – ? articles in 2010.

- *International Workshop on Models and Evolution* (ME)

    – 1 article in 2016.

- *International Conference on Model Driven Engineering, Languages, and Systems* (MoD-ELS)

    – 1 articles in 2006.

- *International Workshop on Mining Software Repositories* (MSR)

    – 4 articles in 2008.

- *Object-Oriented Programming, Systems, Languages, and Applications* (OOPSLA)

    – 1 article in 2012.

- *Pervasive Patterns and Applications* (PATTERNS)

    – 1 article in 2012.
    – 2 articles in 2011.
    – 2 articles in 2010.

- *International Workshop on Program Comprehension through Dynamic Analysis* (PCODA)

    – 3 articles in 2010.

- *Principles and Practice of Declarative Programming* (PPDP)

    – 1 article in 2006.

- *International Workshop on Quality of Object-oriented Software* (QAOOSE)

    – 1 article in 2010.

- *Qualité des Modèles de Conception* (QMC)

    – 0 article in 2007 (workshop canceled).

- *International Conference on Quality Software* (QSIC)

  - 3 articles in 2011.
  - 5 articles in 2010.
  - 5 articles in 2009.

- *International Workshop on Software Audits and Metrics* (SAM)

  - 2 articles in 2004.

- *International Conference on Software Analysis, Evolution, and Reengineering* (SANER)

  - 6 articles in 2016.

- *International Working Conference on Source Code Analysis and Manipulation* (SCAM)

  - 4 articles in 2016.

- *Software Patterns and Quality* (SPAQu)

  - 3 articles in 2009.
  - 1 article in 2008.
  - 2 articles in 2007.

- *Symposium on Search Based Software Engineering* (SSBSE)

  - 3 articles in 2011.

- *International Workshop on Software Technology and Engineering Practice* (STEP)

  - 3 articles in 2005.

- *International Workshop on Technical Debt Analytics* (TDA)

  - 1 article in 2016.

- *International Workshop on Traceability of Emerging Forms of Software Engineerin* (TEFSE)

  - 1 article in 2011.
  - 2 articles in 2009.

- *colloque international des technologies de l'information et de la communication dans l'enseignement supérieur et l'entreprise* (TICE)

  - 2 articles in 2006.

- *Architecture-Centric Evolution* (WACE)

    – 2 articles in 2006.

- *Workshop on Advanced Software Development Tools and Techniques* (WASDeTT)

  – 2 articles in 2010.
  – 3 articles in 2008.

- *Working Conference on Reverse Engineering* (WCRE)

  – 7 articles in 2012.
  – 6 articles in 2011.
  – 5 articles in 2010.
  – 5 articles in 2008.
  – 7 articles in 2007.

Subventions:

- *Natural Science and Engineering Research Council of Canada* (NSERC)

  – 49 grant applications in 2015.
  – 39 grant applications in 2014.
  – 29 grant applications in 2013.
  – 1 grant application in 2012.
  – 2 grant applications in 2011.
  – 1 grant application in 2010.
  – 2 grant applications in 2008.
  – 2 grant applications in 2005.

- *Austrian Science Fund* (FWF)

  – 1 grant application in 2010.

- *Mathematics of Information Technology and Complex Systems* (MITACS)

  – 1 grant application in 2009.

- *National Center of Science and Technology Evaluation* of Kazakhstan (NCST Kazakhstan)

  – 4 grant applications in 2014.

- *Organisation for Scientific Research* of Netherlands (NWO)

    – 1 grant application in 2014.

- *Ontario Centers of Excellence* (OCE)

    – 0 grant application in 2009 (conflict of interest).

Professional organisation:

- *Ordre des Ingénieurs du Québec* (OIQ)

    – 1 request for expertise in software engineering in 2011.

    – 3 requests for expertise in software engineering in 2010.

Summer schools :

- *Generative and Transformational Techniques in Software Engineering* (GTTSE)

    – 2 articles in 2012.

Best thesis awards:

- *Groupement de Recherche Génie de la Programmation et du Logiciel* (GDR GPL)

    – 3 theses in 2016.

    – 3 theses in 2015.

    – 5 theses in 2013.

    – 8 theses in 2012.

13.6.   Seminars

18/05/2016	LATECE
30/03/2016	Concordia U.
22/03/2016	Workshop on Security and Privacy Engineering
11/03/2015	Chalmers
5/03/2014	AsianPLoP Keynote
12/02/2014	NII Lecture Series
14/10/2013	KAIST
7/06/2013	Programming Language Research Group, KAIST
08/12/2011	BENEVOL 2011
?/08/2010	Triskell Team, IRISA
28/10/2009	Department of Computer Science, Université du Québec à Montréal
23/09/2009	SAP Montréal
4/12/2008	Department of Computer Science, Université du Québec à Montréal
17/11/2008	Department of Computer Science, KAIST
2/10/2008	DGIGL, Polytechnique Montréal
7/06/2007	PROG, Vrije Universiteit Brussel
15/03/2007	LIFL, Université des Sciences et Technologies de Lille
14/03/2007	Institut d'informatique, Université de Mons-Hainaut
5/10/2006	IBM Ottawa Software Lab.
5/09/2006	Laboratoires Universitaires Bell
23/04/2004	Department of Computer Science, Université du Québec à Montréal
1/04/2004	DIRO, University of Montreal
25/03/2003	SCG, Institute of Applied Mathematics, University of Bern
25/02/2003	DIRO, University of Montreal
21/08/2001	Object Technology International, Inc.

14.   Other Services

- External member of the hiring committee at Chalmers-Götenburg, year 2016.

- Support to a colleague's promotion to the rank of full professor through an independent assessment of its application, year 2016.

- Support to a colleague's promotion to the rank of full professor through an independent assessment of its application, year 2015.

- Consultant for Engineers Canada as "subject matter experts" for the development of the competency-based project in software engineering, year 2010–2011.

- Consultant for the Ordre des ingénieurs du Québec (OIQ) as expert for the assessment of the software engineering experience, years 2009–2011.

- Director of Journal and Conferences Management for SERSC, year 2009–2010.

- Student Activity Chair of Montreal IEEE Branch, year 2006–2007.

- Student Activity Chair of Montreal IEEE Branch, year 2005–2006.

- Advisor to the Training Committee of the Undergraduate Association at DIRO, year 2004–2005.

- Student Activity Chair of Montreal IEEE Branch, year 2004–2005.