Dr. Alexandre Bergel

Senior Researcher at the German Aerospace Center (DLR), member of the **Institute of Software Technologies**. I was previously Computer Scientist at **Relational AI** and Professor (Associate) at the **University of Chile**, founder and member of the **Intelligent Software Construction laboratory (ISCLab)**.

My research interests include software engineering, artificial intelligence, search-based algorithms, visualization of large and complex software systems, machine learning, software testing, and databases.

My current hypotheses are validated through rigorous empirical methodologies. My research has improved open-source and closed software systems, critical embedded software systems such as bank databases, satellite flight software, and robotic behavior.

I am a French citizen, born in Nice, France.

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Physical location: Munich area, Germany

Academic online profiles

Web of Science ResearcherID: **I-1397-2013**
Google scholar
DPLP
ACM

Education

2001-2005 **PhD, Computer Science**. University of Bern (Switzerland). *Thesis title: Classboxes – Controlling Visibility of Class Extensions.* Recipient of the *Ernst Denert Software Engineering 2006 prize* **URL1**, **URL2**

2000-2001 **Diplôme d'Etudes Approfondies (DEA) d'informatique**. University of Nice-Sophia Antipolis (France)

Academic and Industrial Employment History

2026 - present Senior Researcher at the **German Aerospace Center (DLR)**, Oberpfaffenhofen, Germany.

2022 - 2026	Computer Scientist at **RelationalAI**, Berkeley, USA.
2018 - 2022	Associate Professor at the **Department of Computer Science (DCC)**, University of Chile
2009 - 2018	Assistant Professor at the **Department of Computer Science (DCC)**, University of Chile
10/07 - 05/09	CR2 Researcher at INRIA Lille Nord-Europe, France
04/07 - 10/07	Research fellow (postdoc) at the Software Architecture Group, leaded by Robert Hirschfeld, at the **Hasso-Plattner-Institut**, Germany
01/06 - 03/07	Research fellow (postdoc) at the **Distributed Systems Group**, leaded by Siobhán Clarke and Vinny Cahill, Trinity College Dublin, Ireland
11/01 - 11/05	Research assistant, University of Bern, Switzerland

Prominent Given Talks

In December 2020, I gave a one-hour talk to the Jet Propulsion Laboratory (JPL) at NASA (the team in charge of developing the control system of the Mars Rover). The title of the talk was "Visualization and Analysis of Critical Software Systems." **URL1**, **URL2**.

In August 2020 I gave a talk at the Deutsches Zentrum für Luft- und Raumfahrt (DLR), Institut für Softwaretechnologie, Cologne, Germany. The title of the talk was "Experiences in Software Visualization". Contact: **Andreas Schreiber**.

Teaching experience

I believe that as a person and teacher, it is essential to promote values and ethical principles, provide constant feedback, and provide adequate learning material. Over the last 12 years, I have designed and taught four central lectures lectures at the Department of Computer Science at the University of Chile:

- *Advanced object-oriented programming with Java* for undergraduate students;
- *Software quality*, project-based, for undergraduate and postgraduate students;
- *Neural network, genetic algorithm, and neuroevolution*, for undergraduate students. Half of the lecture delivers theoretical and practical contents, while the other half is about project construction;
- *Evolutive algorithms*, for postgraduate students.

Editorial Board Membership

From 2020 until 2025, I was member of the editorial board of the prestigious journal **Empirical Software Engineering**.

Steering Committees

I served in the following steering committees:

- 2018 - present: **Seminar Series on Advanced Techniques & Tools for Software Evolution**
- 2015 - 2020: **IEEE International Working Conference on Software Visualization (VISSOFT)**

International project evaluation

I have participated in the following international project evaluation committees:

- *DFG*: Deutsche Forschungsgemeinschaft (2015) – Germany
- *FONDEF*: Fondo de Fomento al Desarrollo Científico y Tecnológico (since 2016) – Chile
- *ANID* / *CONICYT*: Comisión Nacional de Investigación Científica y Tecnológica (since 2012) – Chile
- *FONCYT*: Comunicaciones y Electrónica del Fondo para la Investigación Científica y Tecnólogica (2014, 2019) – Argentina
- *NWO*: Netherlands Organisation for Scientific Research (2012) – Netherlands
- *SNSF*: Swiss National Science Foundation (2009, 2010) – Switzerland

Public funding

I have succeeded in obtaining two **Fondecyt regular projects**. In Chile, a Fondecyt regular is the largest grant that can be obtained as a single researcher (~100K USD each). In addition, I have succeeded in obtaining various large fundings (several thousands of euros each) for mobility, between the University of Chile, the University of Stuttgart and several INRIA research centers in France. I have recently won a scholarship from the Swiss Science National Foundation to sponsor my sabbatical research visit at the University of Bern in 2022.

I am the recipient of public funded grants, and as such, I am leading / have led the following projects:

- MAEVA – Impact of Software Evolution on Memory and Energy Consumption (2020 - 2023) – FONDECYT Regular 1200067 (approx 100K euros)
- VISIAR – Visualizing Software Performance in Immersive Virtual and Augmented Reality (2020 - 2022) – Programa de Cooperación Internacional (approx 10K euros) `https://visiar-redes.github.io`
- STICAmSud DAJA – Detection strategies based on Software Metrics for Multitier JavaScript (2018 - 2020) – STICAmSud (approx 3K euros) `https://daja-sticamsud.github.io`
- ALMA – Analyses and Tools for Monitoring and Improving Software Quality (2012 - 2014) – FONDECYT Regular 1120094 (approx 100K euros)
- ASPIRE – Assess, Visualize and Reengineer Software Engineering processes (2011 - 2013) – ECOS-CONICYT (approx 10K euros)
- CoReA – Comprehension and Remodularization of Applications based on Aspects, Classboxes and Traits (2009 - 2011) – STICAmSud (approx 3K euros)

Private funding

I have a long experience in attracting fundings from industries. In 2012, I was approached by Lam Research, a prominent industry in the field of semi-conductor after a presentation I did in an industrially-oriented conference. After an initial prototype, I was able to obtain a large funding from this company. Due to some serious inadequacies of the University of Chile to handle the funding, I created the company Object Profile to give a legal structure to carry out engineering activities and conducting applied research. In 2011, Object Profile competed in the Intel Global Challenge, and was among the finalist.

Before I left Chile, the company turned 10 years and it had three full-time employees. In total, Object Profile has attracted over 700K USD from various clients located in North-America and Europe.

Books

I have co-authored or single authored the following books:

- **Practical Artificial Intelligence in Julia: Implementing Neural Networks, Genetic Algorithms, and Neuroevolution in Julia**, by Alexandre Bergel. Published by APress, will be published in 2026.
- **Agile Visualization with Pharo – Crafting Interactive Visual Support Using Roassal**, by Alexandre Bergel. Published by APress, published in 2022. The book has been accessed online over 10K times.
- **Agile Artificial Intelligence in Pharo – Implementing Neural Networks, Genetic Algorithms, and Neuroevolution**, by Alexandre Bergel. Published by APress, July 2020. The book has been accessed online over 10K times.
- **Agile Visualization**, by Alexandre Bergel. Printed by Lulu, 2016
- **Deep into Pharo**, by Alexandre Bergel, Damien Cassou, Stéphane Ducasse, Jannik Laval. Printed by Lulu, 2013

Awards

I am the recipient of the following awards;

- ICPE 2016's Most Influential Paper for "Learning from Source Code History to Identify Performance Failures" (published at the 7th ACM/SPEC International Conference on Performance Engineering – ICPE'16)
- Distinguished Paper Award for "Increasing the Effectiveness of Automatically Generated Tests by Improving Class Observability" (published at ACM/IEEE ICSE 2025)
- Most Influential Paper award at IEEE VISSOFT 2023 for "Performance Evolution Blueprint: Understanding the Impact of Software Evolution on Performance" (published at IEEE VISSOFT 2013)
- 2nd best paper award at the International Workshop on Smalltalk Technologies '23 for "Exploring GitHub Actions through EGAD: An Experience Report"
- Premio Ramón Salas E., Instituto de Ingenieros, for the work about the Suchai CubeSat, 2020
- Best paper award at the 7th IEEE Working Conference on Software Visualization 2019 (IEEE VISSOFT '19), with Juan Pablo Sandoval Alcocer, Fabian Beck, Alexandre Bergel, for the paper titled "Performance Evolution Matrix: Visualizing Performance Variations along Software Versions"
- Best paper award at the 27th IEEE/ACM International Conference on Program Comprehension 2019 (IEEE ICPC '19), with Juraj Kubelka, Romain Robbes
- Distinguished paper at the 6th IEEE Working Conference on Software Visualization (IEEE VISSOFT 2018) for the paper "Overcoming Issues of 3D Software Visualization through Immersive Augmented Reality", with Leonel Merino and Oscar Nierstrasz
- Outstanding Contribution in Reviewing, for the ISI journal Information and Software Technology (October 2016)
- Distinguished Academic, delivered by the University of Chile (April 24, 2015) for the book Deep into Pharo
- Distinguished Reviewer Award, delivered by the IEEE Computer Society SANER Conference 2015
- First position at the 9th Innovation Technology Awards organized by ESUG'12 for our project titled "Object-Centric Debugging"
- Third position at the 9th Innovation Technology Awards organized by ESUG'12 for our project titled "Roassal"

- Best paper award for “Generics and Reverse Generics for Pharo”, ICSOFT’12
- Finalist Desafio Intel 2011
- Ernst Denert Award 2006, for my PhD work on Classboxes
- Best paper award for “Classboxes: A Minimal Module Model Supporting Local Rebinding”, JMLC’03

Program Committee Participations

To date, I have served in 201 program committees of international conferences:

- **SANER’27** – 34th IEEE International Conference on Software Analysis, Evolution and Reengineering
- **SCAM’27** – IEEE International Conference on Source Code Analysis & Manipulation
- **FSE’27** – ACM International Conference on the Foundations of Software Engineering
- **ICPC’27** – 35th International Conference on Program Comprehension
- **ICCQ’26** – 6th International Conference on Code Quality
- **IEEE VISSOFT’26** – 14th IEEE Working Conference on Software Visualization
- **VISSOFT’25** – 13th IEEE Working Conference on Software Visualization
- **ICSME’25** – 41st IEEE International Conference on Software Maintenance and Evolution
- **SESoS’25** – 13th ACM/IEEE International Workshop on Software Engineering for Systems-of-Systems and Software Ecosystems
- **ICPC’25** – 33rd edition of the International Conference on Program Comprehension
- **VISSOFT’24** – 12th IEEE Working Conference on Software Visualization
- **ICSME’24** – 40th IEEE International Conference on Software Maintenance and Evolution
- **ICSE’24** – 46th International Conference on Software Engineering 2024
- **SESoS’24** – 12th ACM/IEEE International Workshop on Software Engineering for Systems-of-Systems and Software Ecosystems
- **IEEE/ACM ASE’23-Journal First`** – 38th IEEE/ACM International Conference on Automated Software Engineering - Journal-First Track
- **IEEE VISSOFT’23** – 11th IEEE Working Conference on Software Visualization
- **IEEE SCAM’23** – 23rd IEEE International Working Conference on Source Code Analysis and Manipulation
- **EI.A’23** – Energy Informatics.Academy Conference
- **ICSME’23** – 39th IEEE International Conference on Software Maintenance and Evolution
- **ICSME-Industry’23** – 39th IEEE International Conference on Software Maintenance and Evolution - Industry track
- **SATToSE’23** – 15th Seminar on Advanced Techniques & Tools for Software Evolution
- **ICPC’23** – 31st International Conference on Program Comprehension
- **ISSTA’23** – 32nd ACM SIGSOFT International Symposium on Software Testing and Analysis
- **SANER-ERA’23** – 30th IEEE International Conference on Software Analysis, Evolution and Reengineering
- **ICCQ’23** – 3rd International Conference on Code Quality
- **ICSE’23** – 45th International Conference on Software Engineering 2023
- **EASEAI’22** – 4th International Workshop on Education through Advanced Software Engineering and Artificial Intelligence
- **BENEVOL2022** – 21st Belgium-Netherlands Software Evolution Workshop
- **IEEE IROS’22** – IEEE/RSJ International Conference on Intelligent Robots and Systems
- **IEEE VISSOFT’22** – 10th IEEE Working Conference on Software Visualization

- **ASE-NIER'22** – 37th IEEE/ACM International Conference on Automated Software Engineering
- **ECSA-DE&I'22** – 16th European Conference on Software Architecture – Diversity, Equity and Inclusion
- **ICPE'22** – 13th ACM/SPEC International Conference on Performance Engineering
- **SESoS'22** – 10th ACM/IEEE International Workshop on Software Engineering for Systems-of-Systems and Software Ecosystems
- **ICPC'22** – 30th ACM/IEEE International Conference on Program Comprehension
- **ICPC-Tool'22** – 30th International Conference on Program Comprehension - Tool Demo Track
- **ICPC'22** – 30th International Conference on Program Comprehension
- **ASE'22** – 37th IEEE/ACM International Conference on Automated Software Engineering
- **ICSA'22** – 19th IEEE International Conference on Software Architecture
- **SANER-ERA'22** – 29th IEEE International Conference on Software Analysis, Evolution and Reengineering - Early Research Achievements
- **ACM/SPEC ICPE'22** – 11th International Conference on Performance Engineering
- **ISEC'22** – 15th Innovations in Software Engineering Conference
- **ICSE'22** – 44th International Conference on Software Engineering 2022
- **A-TEST 2021** – 12th A-TEST Workshop, collocated with ESEC/FSE 2021
- **ASE-NIER 2021** – 36th IEEE/ACM International Conference on Automated Software Engineering - New Ideas and Emerging Results track
- **CIbSE 2021** – 24th Iberoamerican Conference on Software Engineering
- **IEEE VISSOFT-MIP 2021** – 10th IEEE Working Conference on Software Visualization - Most Influential Paper Award chair **(Chair)**
- **SBES'21** – Brazilian Symposium on Software Engineering
- **ICSME-NIER'21** – 37th International Conference on Software Maintenance and Evolution - New Ideas and Emerging Results
- **VISSOFT'21** – 9th IEEE Working Conference on Software Visualization
- **ECSA'21** – 15th European Conference on Software Architecture
- **SEAA-AI4DevOps'21** – 47th EUROMICRO Conference on Software Engineering and Advanced Applications - AI-Enabled Software Development and Operations
- **ICSA'21** – IEEE International Conference on Software Architecture
- **SANER-Industry'21** – 28th IEEE International Conference on Software Analysis, Evolution and Reengineering-Industry track
- **SANER-ERA'21** – 28th IEEE International Conference on Software Analysis, Evolution and Reengineering-Early Research Achievements
- **LANGETI @ FSE/ESEC'20** – 1st Languages and Tools for Next Generation Testing Workshop
- **ACM SRC @ FSE/ESEC'20** – ESEC/FSE 2020 ACM Student Research Competition PC
- **SBCARS 2020** – 14th Brazilian Symposium on Software Components, Architectures, and Reuse
- **IWST 2020** – International Workshop on Smalltalk Technologies
- **COP 2020** – The 12th International Workshop on Context-Oriented Programming and Advanced Modularity
- **VISSOFT 2020** – The Eight IEEE Working Conference on Software Visualization
- **DLS 2020** – Dynamic Languages Symposium
- **Onward! Essays 2020** – Onward! Essays 2020 @ ACM SIGPLAN conference on Systems, Programming, Languages, and Applications
- **SEAA - AI4DevOps 2020** – 46th EUROMICRO Conference on Software Engineering and Advanced Applications – track AI-Enabled Software Development and Operations

- **SESoS/WDE 2020** – 14th Workshop on Distributed Software Development, Software Ecosystems and Systems-of-Systems
- **CIbSE 2020** – XXIII Ibero-American Conference on Software Engineering
- **MSR 2020** – 17th International Conference on Mining Software Repositories
- **ICSA 2020** – IEEE International Conference on Software Architecture
- **SANER-LBI 2020** – 27th edition of the IEEE International Conference on Software Analysis, Evolution and Reengineering - Late Breaking Ideas Track
- **SANER-ERA 2020** – 27th edition of the IEEE International Conference on Software Analysis, Evolution and Reengineering - Early Research Achievements
- **SANER-Industry 2020** – 27th edition of the IEEE International Conference on Software Analysis, Evolution and Reengineering - Industry Track
- **ICSME 2019 (Short Papers)** – 35th IEEE International Conference on Software Maintenance and Evolution (Short Papers)
- **WEESR 2019** – 2nd Workshop on Empirical Experiences of Software Reuse
- **DLS 2019** – 15th Dynamic Languages Symposium
- **VISSOFT 2019** – 7th IEEE Working Conference on Software Visualization
- **ASSE 2019** – Argentine Symposium on Software Engineering
- **ICSME 2019** – 35th IEEE International Conference on Software Maintenance and Evolution
- **SESoS-WDES 2019** – Joint 7th ICSE International Workshop on Software Engineering for Systems-of-Systems and 13th Workshop on Distributed Software Development, Software Ecosystems and Systems-of-Systems
- **SEAA 2019** – Euromicro Conference on Software Engineering and Advanced Applications 2019 (Software and Big Data Analytics session)
- **TOOLS 50+1** – Technology of Object-Oriented Languages and Systems
- **MSR 2019** – 16th International Conference on Mining Software Repositories
- **OSS 2019** – 15th International Conference on Open Source Systems
- **SANER-ERA 2019** – 26th IEEE International Conference on Software Analysis, Evolution and Reengineering – Early Research Achievements Track
- **SANER-Industry 2019** – 26th IEEE International Conference on Software Analysis, Evolution and Reengineering – Industry track
- **ICSE-SRC 2019** – 41th International Conference on Software Engineering – Student Research Competition
- **WDES @ ECSE 2018** – 12th Workshop on Distributed Software Development, Software Ecosystems and Systems-of-Systems, collocated with the 12th European Conference on Software Architecture
- **VISSOFT 2018** – 6th IEEE Working Conference on Software Visualization
- **SATToSE 2018** – 11th Seminar on Advanced Techniques & Tools for Software Evolution **(Chair)**
- **IWST 2018** – International Workshop on Smalltalk Technologies
- **ICSME-Industry 2018** – 12th International Conference on Software Maintenance and Evolution - Industry track
- **SA-SEAA 2018** – 44th Euromicro Conference on Software Engineering and Advanced Applications
- **ICPC-ERA 2018** – 26th IEEE/ACM International Conference on Program Comprehension - Early Research Achievement
- **MAINT 2018** – 1st International Workshop on Mining and Analyzing Interaction Histories, co-located with the 25th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)

- **LTB 2018** – Workshop on Load Testing and Benchmarking Software Systems, co-located with the 9th ACM/SPEC International Conference on Performance Engineering (ICPE)
- **SANER-ERA 2018** – 25th IEEE International Conference on Software Analysis, Evolution, and Reengineering - Early Research Achievement
- **VEM 2017** – 5th Workshop on Software Visualization, Evolution and Maintenance
- **ICSME-Industry 2017** – 33rd IEEE International Conference on Software Maintenance and Evolution (ICSME 2017), Industry Track
- **WEA 2017** – 5th International Workshop on Software Ecosystem Architectures
- **IWST 2017** – International Workshop on Smalltalk Technologies
- **ICSME 2017 Artifacts** – 33rd International Conference on Software Maintenance and Evolution - Artifacts Track
- **SLISW / ASSE 2017** – Simposio Latinoamericano de Ingeniería de Software / Simposio Argentino de Ingeniería de Software
- **DLS 2017** – 13th Dynamic Languages Symposium
- **SATToSE 2017** – 10th Seminar on Advanced Techniques & Tools for Software Evolution
- **VISSOFT 2017** – 5th IEEE Working Conference on Software Visualization
- **OSS 2017** – 13th International Conference on Open Source Systems
- **SANER-ERA 2017** – 24th IEEE International Conference on Software Analysis, Evolution, and Reenginering - Early Research Achievement
- **ICPC-ERA 2017** – 25th IEEE International Conference on Program Comprehension - Early Research Achievement
- **WEA 2016** – 4th International Workshop on Ecosystem Architectures
- **SATToSE 2016** – Seminar Series on Advanced Techniques & Tools for Software Evolution.
- **VISSOFT 2016** – IEEE Working Conference on Software Visualization
- **ICPC-Tool Demo 2016** – 24th IEEE International Conference on Program Comprehension – Tool demo
- **VISSOFT-AEC 2016** – IEEE Working Conference on Software Visualization – Artifact Evaluation Committee **(Chair)**
- **ICSME-Industry 2016** – International Conference on Software Maintenance and Evolution, Industry track
- **CIEL 2016** – 5ème Conférence en IngénieriE du Logiciel
- **VEM 2016** – 4th Workshop on Software Visualization, Evolution, and Maintenance (VEM) **(Chair)**
- **OOPS 2016** – 31th ACM Symposium on Applied Computing (SAC 2016), Object-Oriented Languages and Systems track
- **ACM SRC ICSE 2016** – ACM Student Research Competition, collocated with ICSE 2016
- **MODELSWARD 2016** – 4th International Conference on Model-Driven Engineering and Software Development
- **SCORE 2016** – Student Contest on Software Engineering, collocated with ICSE 2016
- **EOSESE 2015** – 2015 European Open Symposium on Empirical Software Engineering
- **VEM 2015** – Workshop on Software Visualization, Maintenance, and Evolution
- **CIEL 2015** – 4ème Conférence en IngénieriE du Logiciel
- **WEA 2015** – 3rd International Workshop on Ecosystem Architectures
- **IWSECO 2015** – 7th Workshop on Software Ecosystems
- **ASSE 2015** – Argentine Symposium on Software Engineering (ASSE 2015)
- **ICSME - ERA 2015** – The IEEE International Conference on Software Maintenance and Evolution (ICSME 2015) — The Early Research Achievements (ERA) Track

- **IEEE VISSOFT 2015** – 3rd International Working Conference on Software Visualization (Program co-chair) **(Chair)**
- **Demos 2015** – Demonstrations and Posters track at Modularity 2015
- **OOPS 2015** – 30th ACM Symposium on Applied Computing (SAC 2015), Object-Oriented Languages and Systems track
- **SANER 2015** – 22nd International Conference on Software Analysis, Evolution, and Reengineering (SANER 2015)
- **SANER-ERA 2015** – 22nd International Conference on Software Analysis, Evolution, and Reengineering, Early Research Achievements (SANER-ERA 2015)
- **VEM 2014** – Workshop on Software Visualization, Maintenance, and Evolution
- **IWST 2014** – International Workshop on Smalltalk Technologies
- **VISSOFT NIER 2014** – 2nd IEEE Working Conference on Software Visualization
- **CLEI 2014** – XI Conferencia Latinoamericana en Informática
- **CIEL 2014** – 3ème Conférence en IngénieriE du Logiciel
- **ENASE 2014** – 9th International Conference on Evaluation of Novel Software Approaches to Software Engineering
- **ICSOFT-PT 2014** – International Conference on Software Paradigm Trends
- **CSMR-WCRE ERA 2014** – Early Research Achievements at the joint meeting of the CSMR and WCRE conferences
- **OOPS 2014** – 29th ACM Symposium on Applied Computing, Object Oriented Programming Languages and Systems
- **MODELSWARD 2014** – 2nd International Conference on Model-Driven Engineering and Software Development
- **ICSE SRC 2014** – Student Research Competition @ ICSE 2014
- **IWST 2013** – International Workshop on Smalltalk Technologies, collocated with ESUG 2013
- **LAFM 2013** – Latin American Workshop on Formal Methods
- **WASDeTT 2013** – 4th International Workshop on Academic Software Development Tools and Techniques
- **WCRE 2013** – 20th Working Conference on Reverse Engineering
- **ESEC/FSE 2013, AEC** – Artifact Evaluation Committee co-chair, 9th joint meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering **(Chair)**
- **CIEL 2013** – Conférence en Ingénierie du Logiciel
- **SC 2013** – International Conference on Software Composition
- **OOPS 2013** – Object Oriented Programming Languages and Systems - ACM SAC 2013
- **ECOOP 2013** – European Conference on Object-Oriented Programming
- **Smalltalks 2012** – 6th International Conference on Smalltalk Technologies
- **IWASE 2012** – International Workshop on Advanced Software Engineering
- **IWST 2012** – International Workshop on Smalltalk Technologies
- **CIEL 2012** – Conference en Ingenierie du Logiciel
- **CibSE 2012** – XV Ibero-American Conference on Software Engineering, Doctoral Symposium
- **ICSOFT 2012** – 6th International Conference on Software and Data Technologies
- **PPPJ 2012** – 10th International Conference on the Principles and Practice of Programming in Java
- **GPCE 2012** – Generative Programming and Component Engineering
- **WEWST 2012** – 7th Workshop on Enhanced Web Service Technologies
- **FREECO 2011** – 2nd workshop on “Free Composition”, collocated at SPLAH/Onward!!

- **Smalltalks 2011** – 5th Argentine Conference on Smalltalk – Research Track
- **IWASE 2011** – Workshop on Advanced Software Engineering
- **DSLRob 2011** – 2nd International Workshop on Domain-Specific Languages and models for ROBotic systems
- **WEWST 2011** – 6th Workshop on Enhanced Web Service Technologies
- **RAM-SE 2011** – 8th Workshop on Reflection, AOP and Meta-Data for Software Evolution
- **IWST 2011** – International Workshop on Smalltalk Technologies
- **ICSOFT 2011** – 6th International Conference on Software and Data Technologies
- **TOOLS Europe 2011** – 49th International Conference on Objects, Models, Components and Patterns
- **SEFM 2011** – 9th IEEE International Conference on Software Engineering and Formal Methods
- **SAC 2011** – Programming Languages (PL) Track at the 26th ACM Symposium on Applied Computing
- **ICSM 2010 (demo track)** – 26th IEEE International Conference on Software Maintenance, tool demo track
- **WEWST 2010** – 5th Workshop on Enhanced Web Service Technologies
- **SCCC 2010** – XXIX Conferencia Internacional de la Sociedad Chilena de Ciencia de la Computacion
- **Smalltalks 2010** – 4th Argentine Conference on Smalltalk – Research Track
- **FAMOORSr 2010** – 4th Workshop on FAMIX and Moose in Reengineering
- **MajecSTIC 2010** – MAnifestation des JEunes Chercheurs en Sciences et Technologies de l'Information et de la Communication
- **IROS'10)** – 1st International Workshop on Domain-Specific Languages and models for ROBotic systems
- **ROOTS 2010** – 1st ECOOP'10 International Workshop on Real-time Object-Oriented Technologies
- **RAM-SE 2010** – 7th ECOOP'10 Workshop on Reflection, AOP and Meta-Data for Software Evolution
- **ICSOFT 2010** – 5th International Conference on Software and Data Technologies
- **CLEI 2010** – XXXVI Latin American Conference on Informatics
- **TOOLS 2010** – 48th International Conference on Objects, Models, Components and Patterns
- **PL-SAC 2010** – Programming Languages Track at the 25th ACM Symposium on Applied Computing
- **RAM-SE 2009** – 6th ECOOP'09 Workshop on Reflection, AOP and Meta-Data for Software Evolution
- **ICSOFT 2009** – 4th International Conference on Software and Data Technologies
- **Smalltalks 2008** – 2da Conferencia Argentina de Smalltalk
- **INTENSIVE 2009** – 1st International Conference on Intensive Applications and Services
- **TOOLS 2009** – 47th International Conference Objects, Models, Components, Patterns
- **ICSOFT 2008** – International Conference on Software and Data Technologies
- **Web Technologies Track at SAC 2008** – the 23rd Annual ACM Symposium on Applied Computing
- **SC 2008** – Software Composition Symposium SC 2008 **(Chair)**
- **ICSOFT 2007** – International Conference on Software and Data Technologies
- **SC 2007** – Software Composition Symposium SC 2007
- **EIWAS 2006** – 3rd European Workshop on Aspects in Software
- **NODe 2006** – Net. Object Days, Objects, Aspects, Service, the Web

- **MajecSTIC 2006** – Conference nationale consacree aux sciences et technologies de l'information et de la communication
- **ICSOFT 2006** – International Conference on Software and Data Technologies
- **SC 2006** – 5th Internation Symposium on Software Composition
- **IWSAC 2005** – 2nd International Workshop on Software Aspects of Context
- **CMDS 2005** – Components Models for Dependable Systems

Publications

To date, I have authored and co-authored 188 peer-reviewed articles, published in international academic venues. All my publications are available online on my personal website, `http://bergel.eu`.

2026

1. **Practical Artificial Intelligence in Julia: Implementing Neural Networks, Genetic Algorithms, and Neuroevolution in Julia**, Alexandre Bergel, 256 Apress. 2026.

2025

1. **Netcode Patterns for Real-Time Online Multiplayer Games**, Simon Furrer, Alexandre Bergel, Timo Kehrer, European conference on patterns and pattern languages. 2025. **URL**
2. **Increasing the Effectiveness of Automatically Generated Tests by Improving Class Observability**, Geraldine Galindo-Gutierrez, Juan Pablo Sandoval Alcocer, Nicolas Jimenez-Fuentes, Alexandre Bergel, Gordon Fraser, 47th IEEE/ACM International Conference on Software Engineering. 2025. **URL URL**

2024

1. **The Hidden Costs of Automation: An Empirical Study on GitHub Actions Workflow Maintenance**, Pablo Valenzuela-Toledo, Alexandre Bergel, Oscar Nierstrasz, Timo Kehrer, 24th IEEE International Conference on Source Code Analysis and Manipulation. 2024.
2. **Debugging Activity Blueprint**, Valentin Bourcier, Alexandre Bergel, Anne Etien, Steven Costiou, 12th IEEE Working Conference on Software Visualization. 2024. **URL**
3. **On the Use of Statistical Machine Translation for Suggesting Variable Names for Decompiled Code: The Pharo Case**, Juan Pablo Sandoval Alcocer, Harold Camacho-Jaimes, Geraldine Galindo-Gutierrez, Andrés Neyem, Alexandre Bergel, Stéphane Ducasse, Journal of Computer Languages. 2024. **URL URL**
4. **Asking and Answering Questions During Memory Profiling**, Alison Fernandez Blanco, Araceli Queriolo Córdova, Alexandre Bergel, Juan Pablo Sandoval Alcocer, Transaction on Software Engineering. 2024. **URL URL**
5. **A Test Amplification Bot for Pharo/Smalltalk**, Mehrdad Abdi, Henrique Rocha, Alexandre Bergel, Serge Demeyer, Journal of Computer Languages. 2024. **URL URL**
6. **Sobo: A Feedback Bot to Nudge Code Quality in Programming Courses**, Sofia Bodadilla, Richard Glassey, Alexandre Bergel, Martin Monperrus, IEEE Software. 2024. **URL**

2023

1. **SmallEvoTest: Genetically Created Unit Tests for Smalltalk**, Alexandre Bergel, Geraldine Galindo-Gutiérrez, Alison Fernandez-Blanco, Juan-Pablo Sandoval-Alcocer, International Workshop on Smalltalk Technologies. 2023. **URL**
2. **µPrintGen: Supporting Workflow Logs Analysis Through Visual Microprint**, Sebastian Alfaro, Alexandre Bergel, Jocelyn Simmonds, 11th IEEE Working Conference on Software Visualization. 2023. **URL**
3. **EGAD: A Moldable Tool for GitHub Action Analysis**, Pablo Valenzuela-Toledo, Alexandre Bergel, Timo Kehrer, Oscar Nierstrasz, 20th IEEE/ACM 20th International Conference on Mining Software Repositories (MSR). 2023. **URL**
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