

# Alberto Bacchelli

SNSF professor, University of Zurich



## contacts

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## publication indexes

<http://Google Scholar>  
<http://DBLP>

## languages

Italian: native speaker  
English: fluent  
French: conversational

## professional memberships

ACM, IEEE

## about

I am SNSF professor of Empirical Software Engineering at University of Zurich, Switzerland. I lead the Zurich Empirical Software Engineering Team (ZEST). I received my Ph.D. in 2013 from the Università della Svizzera Italiana (USI), Switzerland.

My research field is **empirical software engineering**. My broader vision is to move away from decisions based on intuition, or development activities painstakingly conducted manually, into solutions created using data-driven mathematical models, which make use of the large amount of information available during the software engineering process.

My research has advanced the *fundamentals of software analytics*, especially to mine unstructured software data, and the *peer code review process*. The techniques and methods I develop and use are at the intersection of software engineering, machine learning, and social science.

## education

- 04.2009–06.2013 **Ph.D.** in Informatics Università della Svizzera Italiana, Switzerland  
Thesis: *Mining Unstructured Software Data*  
Supervisor: *Prof. Dr. Michele Lanza*
- 04.2006–03.2008 **M.Sc.** in Computer Science University of Bologna, Italy  
Final grade: *110/110 cum laude*
- 09.2006–06.2007 **M.Sc. year** within EU Erasmus program Université Libre de Bruxelles, Belgium  
Main subjects: Software Engineering and Probabilistic Models
- 09.2002–03.2006 **B.Sc.** in Computer Science University of Bologna, Italy  
Final grade: *110/110 cum laude*

## experience

- 08.2017–now **SNSF Professor** University of Zurich, The Netherlands  
Research and teaching in empirical software engineering.
- 09.2013–08.2017 **Assistant professor, tenured after tenure-track** TU Delft, The Netherlands  
Research in software engineering with focus on peer code review and mining unstructured software data. Teaching 3 courses (B.Sc. and M.Sc.) and supervising M.Sc. as well as Ph.D. students.
- 04–08.2013 **Research intern** Microsoft Research, Redmond, USA  
Work on two projects: (1) visualization of code reviews to support understanding and (2) investigating and implementing a system for reviewer recommendation.
- 05–08.2012 **Research intern** Microsoft Research, Redmond, USA  
Work on two projects: (1) data mining approach to link code reviews and code commits and (2) investigating tool-based code review at Microsoft, by means of qualitative methods and data analytics, to improve tools and processes.

# research

## awards

- 2017 **ACM SIGSOFT Distinguished Paper Award** MSR 2017  
“Classifying code comments in Java open-source software systems”
- 2016 **ACM SIGSOFT Distinguished Paper Award** ICSE 2016  
“Work Practices and Challenges in Pull-Based Development: The Contributor’s Perspective”
- Nomination for Best Paper Award** ICSME 2016  
“On the reaction to deprecation of 25,357 clients of 4+1 popular Java APIs”
- 2015 **Best Paper Award** CSCW 2015  
“Supporting Developers’ Coordination in The IDE”
- Nomination for Best Paper Award** SANER 2015  
“Untangling Fine-Grained Code Changes”
- 2014 **Finalist for the Cor Baayen Award** ERCIM 2014  
ERCIM awards promising young researchers in computer science and applied mathematics.
- 2013 **Nomination for ACM SIGSOFT Distinguished Paper Award** ICSE 2013  
“Expectations, Outcomes, and Challenges of Modern Code Review”
- 2009 **Best Paper Award** WCRE 2009  
“Benchmarking Lightweight Techniques to Link E-Mails and Source Code”
- 2008 **Best Paper Award** ICSEA 2008  
“On the Effectiveness of Manual and Automatic Unit Test Generation”

## grants

- 2017 **SNFS Professorship - Data-driven Contemporary Code Review** PI – approx. 1.4M EUR  
On transforming code review into an engineering approach.
- 2016 **STW Take Off - PReview Code** PI – 40k EUR  
On an approach to improve understandability of code under review.
- 2015 **NWO Top-1 grant - Persistent Code Reviewing** Co-PI – approx. 650k EUR  
On investigating techniques to persist and generalize code review efforts.
- 2014 **H2020 MSCA-ITN-2014-EID - SENECA** Co-PI – 255k EUR of 2.2M EUR  
On data science for software engineering in the cloud; I supervise peer code review investigation.
- INRIA Associate Team - Improving code review tools** Co-PI – 10K EUR  
On creating novel code review tools for dynamically typed languages.
- Google Faculty Research Award** PI – approx. 50k EUR  
On investigating the code review process.

## invited talks

- 2017 **Evidence-based Code Review** London, United Kingdom  
56th CREST Open Workshop, University College London
- Contemporary Peer Code Review** Zurich, Switzerland  
Software Evolution and Architecture Lab, University of Zurich
- 2016 **Advances in Code Review** Amsterdam, The Netherlands  
BESTSELLER
- What Do Code Reviews at Microsoft and in OSS Projects Have in Common?** Bruxelles, Belgium  
FOSDEM 2016
- Data-driven Contemporary Code Review** Zurich, Switzerland  
University of Zurich, Switzerland
- Data-driven Contemporary Code Review** Lugano, Switzerland  
Università della Svizzera Italiana, Switzerland
- 2015 **Code review needs the right approach** Bodegraven, The Netherlands  
Stabiplan BV
- Expectations, Outcomes, and Challenges of Modern Code Review** Berlin, Germany  
Software engineering research group (AG SE), Freie Universität Berlin
- Software Analytics needs the right data and the right questions** London, England  
Software Systems Engineering Group, University College London
- Mining Unstructured Software Data** Nijmegen, The Netherlands  
Digital security group, Radboud Universiteit Nijmegen
- Supporting Developers' Teamwork in The IDE** Vancouver, BC, Canada  
Software Analysis and Testing (SALT) lab, University of British Columbia
- 2014 **Mining Unstructured Software Data** Namur, Belgium  
PReCISE Research Center, Université de Namur
- 2012 **Pearls In The MUD, Mining Structured Data in NL Artifacts** Delft, The Netherlands  
Software Engineering Research Group (SERG), TU Delft
- Mining Development Email Archives** Victoria, Canada  
Computer Human Interaction & Software Engineering Lab, University of Victoria
- Mining Development Email Archives** Montreal, QC, Canada  
SOCCER Lab, École Polytechnique de Montréal
- Mining Development Email Archives** Kingston, ON, Canada  
Software Analysis and Intelligence Lab, Queen's University

# professional service

## conferences

- 2018 **ASE** (PC member), **ESEC/FSE** (PC member), **ICPC** (PC member), **MSR** (PC member)
- 2017 **ESEC/FSE** (PC member), **ICSE** (PC member)
- 2016 **ICSE** (PC member), **ICPC** (PC member), **ICSME** (Tool demo track, co-chair), **IWESEP** (PC member), **MSR** (PC member), **MUD** (SC member), **SANER** (ERA track, co-chair),
- 2015 **ASE** (Tool demo track, PC member), **FSE** (Tool demo track, PC member), **ICPC** (PC member), **ICSE** (social networking co-chair), **ICSME** (PC member), **ISEC** (PC member), **MSR** (PC member), **MUD** (SC member), **SANER** (PC member)
- 2014 **ACM SRC** (PC member), **CSEE&T** (PC member), **CSMR-WCRE** (PC member), **ECOOP** (artifact evaluation, PC member), **ICSME** (PC member), **MSR** (PC member), **MUD** (co-organizer)
- 2013 **CSS&T** (PC member), **CSMR** (ERA track, PC member) **ICPC** (ERA track, PC member), **ICSM** (Tool demo track, PC member), **MSR** (Mining challenge chair), **MUD** (co-organizer), **NaturalISE** (co-organizer), **WCRE** (PC member)
- 2012 **CSEE&T** (PC member), **CSMR** (publicity chair), **ICSM** (publicity chair), **MSR** (Mining challenge, PC member), **MUD** (co-organizer)

## journal referee

- TOSEM** ACM Transactions on Software Engineering and Methodology, ACM.
- TSE** IEEE Transactions on Software Engineering, IEEE Computer Society.
- EMSE** Empirical Software Engineering: An International Journal, Springer.
- JSEP** Journal of Software: Evolution and Process (formerly known as Journal on Software Maintenance and Evolution: Research and Practice, JSME), John Wiley & Sons.
- JSS** Journal of Systems and Software, Elsevier.
- PeerJ** PeerJ Computer Science.

# teaching

## instructor

- 2017–2018 **Mining Software Repositories (M.Sc.)** instructor – TU Delft  
This edition of the course has seen an increase in the involvement of my supervised Ph.D. students, in order to make them gain experience in advising Master students on topics related to their Ph.D. tracks.
- Software Engineering Methods (B.Sc.)** co-instructor – TU Delft  
This edition was taught together with Dr. Palomba. A significant addition to the course regarded aspects of software security and defensive programming, in coordination with Prof. dr. Hartel and Dr. Zimmermann from Cyber Security.
- 2016–2017 **Context Project (B.Sc.)** co-coordinator, SE instructor, and context teacher – TU Delft  
This edition continued the structure of the previous one.
- Mining Software Repositories (M.Sc.)** instructor – TU Delft  
This edition continued the structure of the previous one.
- Software Engineering Methods (B.Sc.)** instructor – TU Delft  
This edition continued the structure of the previous one.
- 2015–2016 **Context Project (B.Sc.)** co-coordinator, SE instructor, and context teacher – TU Delft  
In this edition of the course, I also cover the role of context teacher and lead 5 groups of students in the development of “tools for software engineering.”
- Mining Software Repositories (M.Sc.)** instructor – TU Delft  
This edition focused on using data from past Mining Software Conferences to either replicate previous work or conduct novel research in software analytics.
- Software Engineering Methods (B.Sc.)** instructor – TU Delft  
In this edition, I kept the content and format from the previous edition, since results were satisfactory. I streamlined the logistics of the group project updating the software infrastructure and grading rubrics.
- 2014–2015 **Context Project (B.Sc.)** co-coordinator and SE instructor – TU Delft  
In this edition of the course, I also introduced the use of pull-based development model (on GitHub), static analysis tools, and code reviews.
- Mining Software Repositories (M.Sc.)** instructor – TU Delft  
Students learn about recent research on software analytics and implement a full data mining approach, from data collection and analysis scripts to final report writing.
- Software Engineering Methods (B.Sc.)** instructor – TU Delft  
In this edition, I introduced a group project. Students develop a fully working game and iterate over it using SCRUM and guided by weekly assignments.
- 2013–2014 **Context Project (B.Sc.)** co-coordinator and SE instructor – TU Delft  
Students learn to develop, implement, validate, present, and demonstrate a software product that satisfies the needs of an external party in a given non-ICT context. I co-coordinate the 8 teachers involved and I am responsible for supervising and evaluating the software engineering aspects of the course. Students have to follow SCRUM and continuous integration and testing.
- Software Evolution Seminars (M.Sc.)** co-instructor – TU Delft  
Students form groups of two and present and debate in class recent papers about software evolution. The teachers guide the discussion and evaluate students’ presentations and participation in debates.
- Software Engineering Methods (B.Sc.)** instructor – TU Delft  
Students learn the basics of software engineering. Topics include requirements engineering, advanced OO programming, design patterns, modeling with UML, agile methodologies, software visualization.

## student supervision (since being a faculty member)

in progress	<b>Anand Sawant</b> <i>Mining fine-grained large-scale API usage</i>	since Jan 2016, <u>Ph.D. student</u> , TU Delft
	<b>Vincent Hellendoorn</b> <i>Software Linguistics</i>	co-supervision with P. Devanbu, since Jan 2016, <u>Ph.D. student</u> , UC Davis
	<b>Luca Pascarella</b> <i>Mining Code Comments for Software Quality</i>	since Jan 2016, <u>Ph.D. student</u> , TU Delft
	<b>Davide Spadini</b> <i>Collaborative Software Testing</i>	co-supervision with SIG, since Jul 2016, <u>Ph.D. student</u> , TU Delft
	<b>Vladimir Kovalenko</b> <i>Network analysis of code review</i>	since Oct 2016, <u>Ph.D. student</u> , TU Delft
	<b>Raies Saboerali</b> <i>On the Effect of Modern Code Review: The Case of Exact</i>	<u>M.Sc. Thesis</u> , TU Delft
	<b>Lorenzo Gasparini</b> <i>Software Visualization for Code Review</i>	<u>M.Sc. Thesis</u> , TU Delft
	<b>Jorden van Breemen</b> <i>Auto-ordering Code Changes for Review</i>	<u>M.Sc. Thesis</u> , TU Delft
2017	<b>Menno Oudshoorn and Bart de Jonge</b> <i>Unobtrusive automated support for software developers</i>	<u>Honors program</u> , TU Delft
	<b>Marco Di Biase</b> <i>Code review and security</i>	co-supervision with SIG, from Jan 2016 to Mar 2017, <u>Ph.D. student</u> , TU Delft
	<b>Jorden van Breemen</b> <i>On the Effect of Code Quality on Agile Effort Estimations: The Case of Shell</i>	<u>M.Sc. Thesis</u> , TU Delft
2016	<b>Eva Anker and Tim van der Lippe and Thomas Smith</b> <i>Enhanced GitHub code review</i>	<u>B.Sc. Project</u> , TU Delft
2015	<b>Reinier Hartog</b> <i>Octopull: Supporting reviews of pull-requests</i>	<u>M.Sc. Thesis</u> , TU Delft
	<b>Ahmad Yandriansyah Reza</b> <i>Requirements Engineering Practices in Global Software Engineering Organization</i>	co-supervision with D.M. van Solingen, <u>M.Sc. Thesis</u> , TU Delft
	<b>Anand Sawant</b> <i>Mining fine-grained API usage from GitHub</i>	<u>M.Sc. Thesis</u> , TU Delft
	<b>Vincent Hellendoorn</b> <i>Empirical Software Linguistics: An Investigation of Code Reviews, Recommendations and Faults</i>	<u>M.Sc. Thesis</u> , TU Delft

**Best Master Thesis of the EEMCS Faculty 2015**

## references

### **prof. dr. Arie van Deursen**

Role: Professor (head of the Software Engineering Research Group)  
Affiliation: Delft University of Technology  
Address: Mekelweg 4, 2628 CD Delft  
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Web: <http://www.st.ewi.tudelft.nl/arie/>  
Phone: +31 15 278 2486

### **prof. dr. Premkumar T. Devanbu**

Role: Professor  
Affiliation: University of California, Davis  
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Web: <http://www.cs.ucdavis.edu/~devanbu>  
Phone: +1 530 752-7324

### **prof. dr. Michele Lanza**

Role: Professor  
Affiliation: Università della Svizzera Italiana  
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Web: <http://www.inf.usi.ch/lanza/>  
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### **prof. dr. Margaret-Anne Storey**

Role: Professor  
Affiliation: University of Victoria  
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Web: <http://www.inf.usi.ch/lanza/>  
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### **dr. Thomas Zimmermann**

Role: Senior Researcher  
Affiliation: Microsoft Research  
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Web: <http://thomas-zimmermann.com/>  
Phone: +1 425 703 8450

## complete list of publications

Peer-reviewed conferences are accepted in software engineering as high-quality scholarly articles. This point is expressed in the article “Research Evaluation for Computer Science” in *Communications of the ACM* (April 2009).<sup>1</sup>

The International Conference on Software Engineering (ICSE) is considered the most prestigious conference, with the highest standards in the software engineering field.<sup>2</sup> I have published 7 papers in the main track at ICSE, of which one was nominated for an ACM SIGSOFT Distinguished Paper Award (2013) and one has received an ACM SIGSOFT Distinguished Paper Award (2016).

According to Google scholar (Dec 15, 2017), my h-index is 19 with 1,286 citations showing an upward trend.

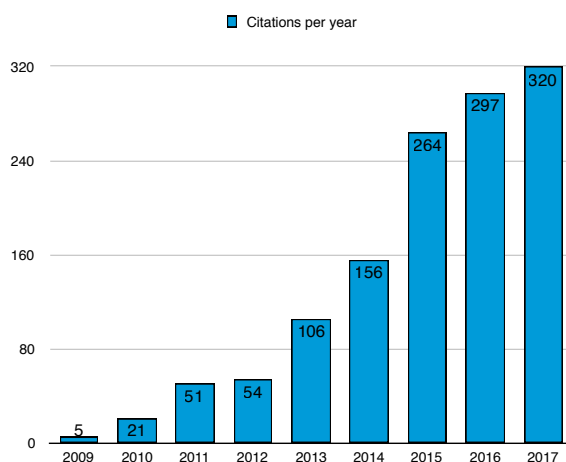


Figure 1: Citations per year, according to Google Scholar on Nov 01, 2017.

## international peer-reviewed conference papers

[ICSE 2018] Understanding Developers’ Needs on Deprecation as a Language Feature

Anand Ashok Sawant, Mauricio Aniche, Arie van Deursen, Alberto Bacchelli

*Proceedings of the 40th ACM/IEEE International Conference on Software Engineering*, in press, 2018

[ICSE 2018] When Testing Meets Code Review: Why and How Developers Review Tests

Davide Spadini, Mauricio Aniche, Margaret Storey, Magiel Bruntink, Alberto Bacchelli

*Proceedings of the 40th ACM/IEEE International Conference on Software Engineering*, in press, 2018

[ICSE 2017] Double-blind review in software engineering venues: the community’s perspective

Alberto Bacchelli, Moritz Beller

*39th ACM/IEEE International Conference on Software Engineering (Companion Volume)*, pp. 385–396, 2017

[ICSME 2017] On the Optimal Order of Reading Source Code Changes for Review

Tobias Baum, Kurt Schneider, Alberto Bacchelli

*33rd IEEE International Conference on Software Maintenance and Evolution*, in press, 2017

[MSR 2017] Classifying code comments in Java open-source software systems

Luca Pascarella, Alberto Bacchelli

*14th International Conference on Mining Software Repositories*, pp. 227–237, 2017

**ACM SIGSOFT Distinguished Paper Award**

[MSR 2017] To mock or not to mock? An empirical study on mocking practices

Davide Spadini, Mauricio Aniche, Magiel Bruntink, Alberto Bacchelli

*14th International Conference on Mining Software Repositories*, pp. 402–412, 2017

[ESEM 2016] Social Diversity and Activity Levels of Open Source Software Projects on GitHub

Joop Aué, Michiel Haisma, Kristin Fjola Tomasdottir, Alberto Bacchelli

<sup>1</sup>This point is also underlined by Michael D. Ernst (Professor at the University of Washington, and previously researcher at Microsoft Research and tenured professor at MIT): “conference papers are arguably more prestigious than journal publications: oftentimes, conferences have higher standards and lower acceptance rates.” For a copy: <http://sback.it/other/ernst-conf-vs-journal-uscis.pdf>.

<sup>2</sup>This is also expressed in the article: “Automatic and versatile publications ranking for research institutions and scholars” in *Comm. of the ACM* (June 2007)



- [ICSE 2016] **Work Practices and Challenges in Pull-Based Development: The Contributor's Perspective**  
Georgios Gousios, Margaret-Anne Storey, [Alberto Bacchelli](#)  
38th ACM/IEEE International Conference on Software Engineering, pp. 285–296, 2016  
**ACM SIGSOFT Distinguished Paper Award**
- [GECCO 2016] **A Search-based Training Algorithm for Cost-aware Defect Prediction**  
Annibale Panichella, Carol V. Alexandru, Sebastiano Panichella, [Alberto Bacchelli](#), Harald C. Gall  
Proceedings of the Genetic and Evolutionary Computation Conference, pp. 1077–1084, 2016
- [ICSE 2016] **On the “Naturalness” of Buggy Code**  
Baishakhi Ray, Vincent Hellendoorn, Saheel Godhane, Zhaopeng Tu, [Alberto Bacchelli](#), Premkumar Devanbu  
38th ACM/IEEE International Conference on Software Engineering, pp. 428–439, 2016
- [ICSME 2016] **On the reaction to deprecation of 25,357 clients of 4+1 popular Java APIs**  
Anand Sawant, Romain Robbes, [Alberto Bacchelli](#)  
32nd International Conference on Software Maintenance and Evolution, in press, 2016  
**Nominated for Best Paper Award**
- [SANER 2015] **Untangling Fine-Grained Code Changes**  
Martin Dias, [Alberto Bacchelli](#), Georgios Gousios, Damien Cassou, Stéphane Ducasse  
22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering, pp. 341–350, 2015  
**Nominated for Best Paper Award**
- [CSCW 2015] **Supporting Developers' Coordination in the IDE**  
Anja Guzzi, [Alberto Bacchelli](#), Yann Riche, Arie van Deursen  
18th ACM conference on Computer-Supported Cooperative Work and Social Computing, pp. 518–532, 2015  
**Best Paper Award**
- [MSR 2015] **Will they like this? Evaluating Code Contributions With Language Models**  
Vincent Hellendoorn, Premkumar Devanbu, [Alberto Bacchelli](#)  
12th Working Conference on Mining Software Repositories, pp. 157–167, 2015
- [MSR 2015] **A Dataset For API Usage**  
Anand Sawant, [Alberto Bacchelli](#)  
12th Working Conference on Mining Software Repositories, Data Track, pp. 506–509, 2015
- [MSR 2014] **Modern Code Reviews in Open-Source Projects: Which Problems Do They fix?**  
Moritz Beller, [Alberto Bacchelli](#), Andy Zaidman, Elmar Juergens  
11th IEEE Working Conference on Mining Software Repositories, pp. 202–211, 2014
- [QSIC 2014] **Quantitatively Exploring Non-code Software Artifacts**  
Luca Bigliardi, Michele Lanza, [Alberto Bacchelli](#), Marco D'Ambros  
14th International Conference on Quality Software, pp. 286–295, 2014
- [QSIC 2014] **Understanding and Classifying the Quality of Technical Forum Questions**  
Luca Ponzanelli, Andrea Mocci, [Alberto Bacchelli](#), Michele Lanza  
14th International Conference on Quality Software, pp. 343–352, 2014
- [ICSME 2014] **Improving Low Quality Stack Overflow Post Detection**  
Luca Ponzanelli, Andrea Mocci, [Alberto Bacchelli](#), Michele Lanza, David Fullerton  
30th International Conference on Software Maintenance and Evolution, Industrial Track, pp. 541–544, 2014
- [ICSE 2013] **Expectations, Outcomes, and Challenges of Modern Code Review**  
[Alberto Bacchelli](#), Christian Bird  
35th ACM/IEEE International Conference on Software Engineering, pp. 710–719, 2013  
**Nominated for ACM SIGSOFT Distinguished Paper Award**
- [MSR 2013] **Communication in Open Source Software Development Mailing Lists**  
Anja Guzzi, [Alberto Bacchelli](#), Michele Lanza, Martin Pinzger, Arie Deursen  
10th IEEE Working Conference on Mining Software Repositories, pp. 277–286, 2013
- [ICPC 2013] **Manhattan: Supporting Real-Time Visual Team Activity Awareness**  
Michele Lanza, Marco D'Ambros, [Alberto Bacchelli](#), Lile Hattori, Francesco Rigotti  
21st IEEE International Conference on Program Comprehension, ERA Track, pp. 207–210, 2013
- [CSMR 2013] **Leveraging Crowd Knowledge for Software Comprehension and Development**  
Luca Ponzanelli, [Alberto Bacchelli](#), Michele Lanza

17th European Conference on Software Maintenance and Reengineering, pp. 57–66, 2013

[ICSE 2013] Seahawk: Stack Overflow in the IDE

Luca Ponzanelli, [Alberto Bacchelli](#), Michele Lanza

35th International Conference on Software Engineering, Tool Demo Track, pp. 1295–1298, 2013

[ICSE 2012] Content Classification of Development Emails

[Alberto Bacchelli](#), Tommaso Sasso, Marco D'Ambros, Michele Lanza

34th ACM/IEEE International Conference on Software Engineering, pp. 375–385, 2012

[ASE 2011] Extracting Structured Data from Natural Language Documents with Island Parsing

[Alberto Bacchelli](#), Anthony Cleve, Michele Lanza, Andrea Mocci

26th IEEE/ACM International Conference On Automated Software Engineering, pp. 476–479, 2011

[ICSE 2011] Miler: A Toolset for Exploring Email Data

[Alberto Bacchelli](#), Michele Lanza, Marco D'Ambros

33rd ACM/IEEE International Conference on Software Engineering, pp. 1025–1027, 2011

[CSMR 2011] RTFM (Read The Factual Mails) –Augmenting Program Comprehension with REmail

[Alberto Bacchelli](#), Michele Lanza, Vitezslav Humpa

15th IEEE European Conference on Software Maintenance and Reengineering, pp. 15–24, 2011

[ICSE 2011] Exploring, exposing, and exploiting emails to include human factors in software engineering

[Alberto Bacchelli](#)

33rd ACM/IEEE International Conference on Software Engineering, pp. 1074–1077, 2011

[FASE 2010] Are Popular Classes More Defect Prone?

[Alberto Bacchelli](#), Marco D'Ambros, Michele Lanza

13th International Conference on Fundamental Approaches to Software Engineering, pp. 59–73, 2010

[ICPC 2010] Extracting Source Code from E-Mails

[Alberto Bacchelli](#), Marco D'Ambros, Michele Lanza

18th IEEE International Conference on Program Comprehension, pp. 24–33, 2010

[ICSE 2010] Linking E-Mails and Source Code Artifacts

[Alberto Bacchelli](#), Michele Lanza, Romain Robbes

32nd International Conference on Software Engineering, pp. 375–384, 2010

[QSIC 2010] On the Impact of Design Flaws on Software Defects

Marco D'Ambros, [Alberto Bacchelli](#), Michele Lanza

10th International Conference on Quality Software, pp. 23–31, 2010

[WCRE 2009] Benchmarking Lightweight Techniques to Link E-Mails and Source Code

[Alberto Bacchelli](#), Marco D'Ambros, Michele Lanza, Romain Robbes

16th IEEE Working Conference on Reverse Engineering, pp. 205–214, 2009

**Best Paper Award**

[ICSEA 2008] On the Effectiveness of Manual and Automatic Unit Test Generation

[Alberto Bacchelli](#), Paolo Ciancarini, Davide Rossi

3rd International Conference on Software Engineering Advances, pp. 252–257, 2008

**Best Paper Award**

## peer-reviewed journal articles

[EMSE] On the reaction to deprecation of clients of 4+1 popular Java APIs and the JDK

Anand Sawant, Romain Robbes, [Alberto Bacchelli](#)

Empirical Software Engineering. *EMSE (2018) forthcoming*. Springer, 2018

[SCP] Mining Structured Data in Natural Language Artifacts with Island Parsing

[Alberto Bacchelli](#), Andrea Mocci, Anthony Cleve, Michele Lanza

Science of Computer Programming. *SCP (2017) pp. 31–55*. Elsevier, 2017

[EMSE] fine-GRAPe: fine-Grained APi usage Extractor – An Approach and Dataset to Investigate API Usage

Anand Sawant, [Alberto Bacchelli](#)

Empirical Software Engineering. *EMSE 22.3 (2017) pp. 1348–1371*. Springer, 2017

[SCNTDX] Does single blind peer review hinder newcomers?

Marco Seeber, [Alberto Bacchelli](#)

Scientometrics. *SCNTDX 113.1 (2017)* pp. 567–585. Springer, 2017

[SCP] IRISH: A Hidden Markov Model to Detect Coded Information Islands in Free Text

Luigi Cerulo, Max Di Penta, [Alberto Bacchelli](#), Michele Ceccarelli, Gerardo Canfora  
*Science of Computer Programming, SCP 105 (July 2015)* pp. 26–43. Elsevier, 2015

[ETRD] Team design communication patterns in e-learning design and development

Chrysi Rapanta, Marcelo Maina, Nicole Lotz, [Alberto Bacchelli](#)  
*Educational Technology Research and Development, ETRD 61.4 (2013)* pp. 581–605. Springer, 2013

[IJAS] How to compare and exploit different techniques for unit-test generation

[Alberto Bacchelli](#), Paolo Ciancarini, Davide Rossi  
*International Journal On Advances in Software, IJAS 2.1 (2009)* pp. 131–146. Iaria, 2009

## international peer-reviewed workshop papers

[TAinSM 2012] On The Road to Hades–Helpful Automatic Development Email Summarization

[Alberto Bacchelli](#), Michele Lanza, Ebrisa Mastrodicasa  
*1st International Workshop on on the Next Five Years of Text Analysis in Software Maintenance, 2012*

[RSSE 2012] Harnessing Stack Overflow for the IDE

[Alberto Bacchelli](#), Luca Ponzanelli, Michele Lanza  
*3rd International Workshop on Recommendation Systems for Software Engineering, pp. 26–30, 2012*

[Eclipse-IT 2011] REmail –Blending Talk and Work in Eclipse

[Alberto Bacchelli](#), Lorenzo Baracchi, Michele Lanza  
*6th Workshop of the Italian Eclipse Community, pp. 303–306, 2011*

[Eclipse-IT 2011] Manhattan, A 3D City Visualization in Eclipse

[Alberto Bacchelli](#), Francesco Rigotti, Lile Hattori, Michele Lanza  
*6th Workshop of the Italian Eclipse Community, pp. 307–310, 2011*

[SUITE 2010] Towards Integrating E-Mail Communication in the IDE

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## **phd thesis**

Mining Unstructured Software Data

[Alberto Bacchelli](#)

*University of Lugano, Switzerland, June 2013*