

# Andrea Mocci

REVEAL Group @ Faculty of Informatics  
Università della Svizzera Italiana  
6904 Lugano, Switzerland  
✉ andrea.mocci@usi.ch  
🌐 [www.inf.usi.ch/postdoc/mocci](http://www.inf.usi.ch/postdoc/mocci)

curriculum vitae updated on November 11, 2016

## Personal

Date of birth Jun 2, 1982  
Place of birth Carbonia (CI), Italy  
Citizenship Italian

## Current Position

Nov 2013 - Present **Postdoctoral Researcher**, *REVEAL Group @ Faculty of Informatics, University of Lugano*, Lugano, Switzerland.

## Employment History

Feb 2013 - Oct 2013 **Postdoctoral Researcher (Assegnista di Ricerca)**, *DEEPSE Group @ Politecnico di Milano, Dipartimento di Elettronica, Informazione e Bioingegneria*, Milan, Italy.

Oct 2012 - Jan 2013 **Postdoctoral Research Associate**, *Software Design Group @ MIT CSAIL*, Cambridge, MA (USA).

Oct 2011 - Oct 2012 **Postdoctoral Research Fellow**, *Software Design Group @ MIT CSAIL*, Cambridge, MA (USA).

Jan 2011 - Sep 2011 **Postdoctoral Researcher (Assegnista di Ricerca)**, *DEEPSE Group @ Politecnico di Milano, Dipartimento di Elettronica e Informazione*, Milan, Italy.

Sep 2008 - Feb 2011 **Several Teaching Assistant Positions (see Courses section for details)**, *Politecnico di Milano, Dipartimento di Elettronica e Informazione*, Milan, Italy.

## Education

Jan 2008 - Dec 2010 **PhD, Computer Science**, *Politecnico di Milano, Dip. di Elettronica e Informazione*.  
Final Mark: with Merit. Advisor: Prof. Carlo Ghezzi  
PhD Thesis: “*Behavioral Modeling, Inference and Validation for Stateful Component Specifications*”

Nov 2007 **Professional Engineer Qualification in Information Technology Engineering**, *Politecnico di Milano*.

Oct 2004 - Jul 2007 **MSc (Laurea Specialistica DM 509/99), Computer Engineering**, *Politecnico di Milano*, Milano, Italy.  
Final Mark: 110/110 summa cum laude. Advisor: Prof. Carlo Ghezzi  
Master Thesis: “*Efficient Recovery of Algebraic Specifications for Stateful Components*”

Sep 2001 - Oct 2004 **BSc (Laurea DM 509/99), Computer Engineering**, *Politecnico di Milano*, Milano, Italy.  
Final Mark: 104/110

Sep 1996 - Jul 2001 **Scientific-Technical High School Degree**, *Liceo Scientifico Statale “E. Lussu”*, Sant’Antioco (CI), Italy.  
Final Mark: 100/100

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## Publications

Google Scholar Page <https://scholar.google.com/citations?user=Sgf4DIkAAAAJ>

DBLP Page <http://dblp.uni-trier.de/pers/hd/m/Mocci:Andrea>

### Journals

- [J2] Michele Lanza, Andrea Mocci, and Luca Ponzanelli. “The Tragedy of Defect Prediction, Prince of Empirical Software Engineering Research”. In: *IEEE Software* (Nov-Dec 2016), pp. 102–105.
- [J1] Andrea Mocci and Mario Sangiorgio. “Detecting component changes at run time with behavior models”. In: *Springer Computing* (2013), pp. 191–221. DOI: 10.1007/s00607-012-0214-z.

### Conferences

- [C29] Roberto Minelli, Andrea Mocci, and Michele Lanza. “Visualizing the Evolution of Working Sets”. In: *Proceedings of VISSOFT 2016 (4<sup>th</sup> IEEE Working Conference on Software Visualization)*. 2016.
- [C28] Tommaso Dal Sasso, Andrea Mocci, and Michele Lanza. “What Makes a Satisficing Bug Report?” In: *Proceedings of QRS 2016 (17<sup>th</sup> IEEE International Conference on Software Quality, Reliability and Security)*. 2016, pp. 164–174. DOI: 10.1109/QRS.2016.28.
- [C27] Roberto Minelli, Andrea Mocci, Romain Robbes, and Michele Lanza. “Taming the IDE with Fine-grained Interaction Data”. In: *Proceedings of ICPC 2016 (24<sup>th</sup> International Conference on Program Comprehension)*. 2016, pp. 1–10. DOI: 10.1109/ICPC.2016.7503714.
- [C26] Luca Ponzanelli, Gabriele Bavota, Andrea Mocci, Massimiliano Di Penta, Rocco Oliveto, Mir Hasan, Barbara Russo, Sonia Haiduc, and Michele Lanza. “Too Long; Didn’t Watch! Extracting Relevant Fragments from Software Development Video Tutorials”. In: *Proceedings of ICSE 2016 (38th ACM/IEEE International Conference on Software Engineering)*. ACM Press, 2016, to be published. DOI: 10.1145/2884781.2884824.
- [C25] Luis Mastrangelo, Luca Ponzanelli, Andrea Mocci, Michele Lanza, Matthias Hauswirth, and Nathaniel Nystrom. “Use at Your Own Risk: The Java Unsafe API in the Wild”. In: *Proceedings of OOPSLA 2015 (International Conference on Object Oriented Programming Systems Languages & Applications)*. ACM Press, 2015, pp. 695–710. DOI: 10.1145/2858965.2814313.
- [C24] Tommaso dal Sasso, Roberto Minelli, Andrea Mocci, and Michele Lanza. “Blended, Not Stirred: Multi-concern Visualization of Large Software Systems”. In: *Proceedings of VISSOFT 2015 (3rd IEEE Working Conference on Software Visualization)*. 2015, pp. 106–115. DOI: 10.1109/VISSOFT.2015.7332420.
- [C23] Luca Ponzanelli, Andrea Mocci, and Michele Lanza. “Summarizing Complex Development Artifacts by Mining Heterogeneous Data”. In: *Proceedings of MSR 2015 (12th Working Conference on Mining Software Repositories)*. ACM Press, 2015, pp. 401–405. DOI: 10.1109/MSR.2015.49.
- [C22] Luca Ponzanelli, Andrea Mocci, and Michele Lanza. “StORMeD: Stack Overflow Ready Made Data”. In: *Proceedings of MSR 2015 (12th Working Conference on Mining Software Repositories, Data Showcase Track)*. ACM Press, 2015, pp. 474–477. DOI: 10.1109/MSR.2015.67.
- [C21] Marcello Romanelli, Andrea Mocci, and Michele Lanza. “Towards Visual Reflexion Models”. In: *Proceedings of ICPC 2015 (23rd IEEE International Conference on Program Comprehension, ERA Track)*. 2015, pp. 277–280. DOI: 10.1109/ICPC.2015.38.

- [C20] Roberto Minelli, Andrea Mocci, and Michele Lanza. “The Plague Doctor: A Promising Cure for the Window Plague”. In: *Proceedings of ICPC 2015 (23rd IEEE International Conference on Program Comprehension, ERA Track)*. 2015, pp. 182–185. DOI: 10.1109/ICPC.2015.28.
- [C19] Roberto Minelli, Andrea Mocci, and Michele Lanza. “I Know What You Did Last Summer – An Investigation of How Developers Spend Their Time”. In: *Proceedings of ICPC 2015 (23rd IEEE International Conference on Program Comprehension)*. 2015, pp. 25–35. DOI: 10.1109/ICPC.2015.12.
- [C18] Roberto Minelli, Andrea Mocci, and Michele Lanza. “Free Hugs: Praising Developers For Their Actions”. In: *Proceedings of ICSE 2015 (37th International Conference on Software Engineering, NIER Track)*. IEEE CS Press, 2015, pp. 555–558. DOI: 10.1109/ICSE.2015.342.
- [C17] Tommaso Dal Sasso, Andrea Mocci, and Michele Lanza. “Misery Loves Company - Crowd-Stacking Traces to Aid Problem Detection”. In: *Proceedings of SANER 2015 (22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering)*. IEEE CS Press, 2015, pp. 131–140. DOI: 10.1109/SANER.2015.7081823.
- [C16] Remo Lemma, Michele Lanza, and Andrea Mocci. “CEL - Touching Software Modeling in Essence”. In: *Proceedings of SANER 2015 (22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering)*. IEEE CS Press, 2015, pp. 439–448. DOI: 10.1109/SANER.2015.7081854.
- [C15] Yuriy Tymchuk, Andrea Mocci, and Michele Lanza. “Code Review: Veni, ViDI, Vici”. In: *Proceedings of SANER 2015 (22nd IEEE International Conference on Software Analysis, Evolution, and Reengineering)*. IEEE CS Press, 2015, pp. 151–160. DOI: 10.1109/SANER.2015.7081825.
- [C14] Luca Ponzanelli, Andrea Mocci, Alberto Bacchelli, Michele Lanza, and David Fullerton. “Improving Low Quality Stack Overflow Post Detection”. In: *Proceedings of ICSME 2014 (30th International Conference on Software Maintenance and Evolution)*. IEEE, 2014, pp. 541–544. DOI: 10.1109/ICSME.2014.90.
- [C13] Luca Ponzanelli, Andrea Mocci, Alberto Bacchelli, and Michele Lanza. “Understanding and Classifying the Quality of Technical Forum Questions”. In: *Proceedings of QSIC 2014 (14th International Conference on Quality Software)*. IEEE CS Press, 2014, pp. 343–352. DOI: 10.1109/QSIC.2014.27.
- [C12] Roberto Minelli, Lorenzo Baracchi, Andrea Mocci, and Michele Lanza. “Visual Storytelling of Development Sessions”. In: *Proceedings of ICSME 2014 (30th International Conference on Software Maintenance and Evolution, ERA Track)*. 2014, pp. 416–420. DOI: 10.1109/ICSME.2014.65.
- [C11] Roberto Minelli, Andrea Mocci, Michele Lanza, and Lorenzo Baracchi. “Visualizing Developer Interactions”. In: *Proceedings of VISSOFT 2014 (2nd IEEE Working Conference on Software Visualization)*. 2014, pp. 147–156. DOI: 10.1109/VISSOFT.2014.31.
- [C10] Roberto Minelli, Andrea Mocci, Michele Lanza, and Takashi Kobayashi. “Quantifying Program Comprehension with Interaction Data”. In: *Proceedings of QSIC 2014 (14th International Conference on Quality Software)*. 2014, pp. 276–285. DOI: 10.1109/QSIC.2014.11.
- [C9] Luca Bigliardi, Michele Lanza, Alberto Bacchelli, Marco D’Ambros, and Andrea Mocci. “Quantitatively Exploring Non-code Software Artifacts”. In: *Proceedings of QSIC 2014 (14th International Conference on Quality Software)*. 2014, pp. 286–295. DOI: 10.1109/QSIC.2014.31.

- [C8] Mohammad Ghafari, Carlo Ghezzi, Andrea Mocci, and Giordano Tamburrelli. “Mining Unit Tests for Code Recommendation”. In: *Proceedings of ICPC 2014 (22nd International Conference on Program Comprehension)*. ACM, 2014, pp. 142–145. DOI: 10.1145/2597008.2597789.
- [C7] Yuriy Tymchuk, Andrea Mocci, and Michele Lanza. “Collaboration in Open-source Projects: Myth or Reality?” In: *Proceedings of MSR 2014 (11th Working Conference on Mining Software Repositories)*. ACM, 2014, pp. 304–307. DOI: 10.1145/2597073.2597093.
- [C6] Carlo Ghezzi, Andrea Mocci, and Mario Sangiorgio. “Synthesis of Infinite-State Abstractions and Their Use for Software Validation”. In: *Specification, Algebra, and Software*. Ed. by Shusaku Iida, Jose Meseguer, and Kazuhiro Ogata. Vol. 8373. Lecture Notes in Computer Science. Springer Berlin Heidelberg, 2014, pp. 276–295. DOI: 10.1007/978-3-642-54624-2\_14.
- [C5] Carlo Ghezzi and Andrea Mocci. “Behavioral validation of JFSL specifications through model synthesis”. In: *Proceedings of ICSE 2012 (34th International Conference on Software Engineering)*. Acceptance Rate: 21.3%. 2012, pp. 936–946. DOI: 10.1109/ICSE.2012.6227126.
- [C4] Alberto Bacchelli, Anthony Cleve, Michele Lanza, and Andrea Mocci. “Extracting structured data from natural language documents with island parsing”. In: *Proceedings of ASE 2011 (26th IEEE/ACM International Conference On Automated Software Engineering)*. 2011, pp. 476–479. DOI: 10.1109/ASE.2011.6100103.
- [C3] Luigi Cardamone, Carlo Ghezzi, and Andrea Mocci. “Dynamic Synthesis of Program Invariants using Genetic Programming”. In: *2011 IEEE Congress on Evolutionary Computation (CEC 2011)*. 2011. DOI: 10.1109/CEC.2011.5949677.
- [C2] Carlo Ghezzi, Andrea Mocci, and Guido Salvaneschi. “Automatic Cross Validation of Multiple Specifications: A Case Study”. In: *Fundamental Approaches to Software Engineering, 13th International Conference, FASE 2010, Held as Part of the Joint European Conferences on Theory and Practice of Software, ETAPS 2010, Paphos, Cyprus, March 20-28, 2010. Proceedings*. Acceptance rate: 25%. 2010, pp. 233–247. DOI: 10.1007/978-3-642-12029-9\_17.
- [C1] Carlo Ghezzi, Andrea Mocci, and Mattia Monga. “Synthesizing intensional behavior models by graph transformation”. In: *31st International Conference on Software Engineering (ICSE 2009)*. Acceptance rate: 12%. 2009, pp. 430–440. DOI: 10.1109/ICSE.2009.5070542.

#### Tool Demos

- [D4] Luca Ponzanelli, Gabriele Bavota, Andrea Mocci, Massimiliano Di Penta, Rocco Oliveto, Barbara Russo, Sonia Haiduc, and Michele Lanza. “CodeTube: Extracting Relevant Fragments from Software Development Video Tutorials”. In: *Proceedings of ICSE 2016 (38th ACM/IEEE International Conference on Software Engineering, Tool Demo Track)*. ACM Press, 2016, to be published.
- [D3] Andrea Ciani, Roberto Minelli, Andrea Mocci, and Michele Lanza. “UrbanIt: Visualizing Repositories Everywhere”. In: *Proceedings of ICSME 2015 (31<sup>st</sup> IEEE International Conference on Software Maintenance and Evolution, Tool Demo Track)*. 2015, pp. 324–326. DOI: 10.1109/ICSM.2015.7332479.
- [D2] Yuriy Tymchuk, Andrea Mocci, and Michele Lanza. “ViDI: The Visual Design Inspector”. In: *Proceedings of ICSE 2015 (37th International Conference on Software Engineering, Tool Demo Track)*. IEEE CS Press, 2015, pp. 653–656. DOI: 10.1109/ICSE.2015.215.

- [D1] Carlo Ghezzi, Andrea Mocci, and Mario Sangiorgio. “Runtime monitoring of component changes with Spy@Runtime”. In: *Proceedings of ICSE 2012 (34th International Conference on Software Engineering, Tool Demo Track)*. IEEE CS Press, 2012, pp. 1403–1406. DOI: 10.1109/ICSE.2012.6227237.

### Workshops

- [W6] Roberto Minelli, Andrea Mocci, and Michele Lanza. “Measuring Navigation Efficiency in the IDE”. In: *Proceedings of IWESEP 2016 (7th IEEE International Workshop on Empirical Software Engineering in Practice)*. **(best paper award)**. 2016, pp. 1–6. DOI: 10.1109/IWESEP.2016.11.
- [W5] Nicolas Latorre, Roberto Minelli, Andrea Mocci, Luca Ponzanelli, and Michele Lanza. “SODA: The Stack Overflow Dataset Almanac”. In: *Proceedings of MUD 2015 (5th Workshop on Mining Unstructured Data)*. 2015, pp. 1–5. DOI: 10.1109/MUD.2015.7327961.
- [W4] Carlo Ghezzi, Andrea Mocci, and Mario Sangiorgio. “Runtime Monitoring of Functional Component Changes with Behavior Models”. In: *Models in Software Engineering*. Lecture Notes in Computer Science. **(best paper award)**. Springer Berlin / Heidelberg, 2012, pp. 152–166. DOI: 10.1007/978-3-642-29645-1\_17.
- [W3] Carlo Ghezzi and Andrea Mocci. “Behavior model based component search: an initial assessment”. In: *Proceedings of SUITE 2010 (ICSE Workshop on Search-driven Development: Users, Infrastructure, Tools and Evaluation)*. ACM, 2010, pp. 9–12. DOI: 10.1145/1809175.1809178.
- [W2] Luciano Baresi, Carlo Ghezzi, Andrea Mocci, and Mattia Monga. “Using graph transformation systems to specify and verify data abstractions”. In: *Proceedings of GT-VMT 2008 (7th International Workshop on Graph Transformation and Visual Modeling Techniques)*. Electronic Communications of the EASST. European Association of Software Science and Technology, 2008, pp. 277–290. URL: <http://eceasst.cs.tu-berlin.de/index.php/eceasst/article/view/155/155>.
- [W1] Carlo Ghezzi, Andrea Mocci, and Mattia Monga. “Efficient recovery of algebraic specifications for stateful components”. In: *Proceedings of IWPSE 2007 (7th International Workshop on Principles of software evolution)*. ACM, 2007, pp. 98–105. DOI: 10.1145/1294948.1294972.

### Book Chapters

- [B1] Andreas Metzger, Salima Benbernou, Manuel Carro, Maha Driss, Gabor Kecskemeti, Raman Kazhamiakin, Kyriakos Kritikos, Andrea Mocci, Elisabetta Di Nitto, Branimir Wetzstein, and Fabrizio Silvestri. “Analytical Quality Assurance”. In: *Service Research Challenges and Solutions for the Future Internet*. Ed. by Mike Papazoglou, Klaus Pohl, Michael Parkin, and Andreas Metzger. Vol. 6500. Lecture Notes in Computer Science. Springer, 2010, pp. 209–270.

### Technical Reports

- [T3] Salima Benbernou, Ivona Brandic, Manuel Carro, Marco Comuzzi, Elisabetta Di Nitto, Maha Driss, Julia Hielscher, Raman Kazhamiakin, Gabor Kecskemeti, Attila Kertesz, Kyriakos Kritikos, Andreas Metzger, Hassina Meziane, Andrea Mocci, Barbara Pernici, Pierluigi Plebani, Sagar Sen, Fabrizio Silvestri, and Branimir Wetzstein. “Survey of Quality Related Aspects Relevant for Service-based Applications”. In: *Technical report, Deliverable PO-JRA-1.3.1, S-Cube Consortium, July 2008*. 2008. URL: <http://www.s-cube-network.eu/results/deliverables/wp-jra-1.3/PO-JRA-1.3.1-Survey-of-quality-related-aspects-relevant-for-SBAs.pdf/view>.

- [T2] Elisabetta Di Nitto, Valentina Mazza, and Andrea Mocci. “Collection of Industrial Best Practices, Scenarios and Business Cases”. In: *Technical report, Deliverable CD-IA-2.2.2, S-Cube Consortium, May 2009*. 2009. URL: <http://bibadmin.s-cube-network.eu/show.php?id=218>.
- [T1] Andrea Mocci. “Efficient Code Clone Detection by Leveraging Parsing Techniques”. In: *Technical report, Dipartimento di Elettronica e Informazione, Politecnico di Milano, November 2009*. 2009.

## Teaching Activities

### Courses

- Sep 2016 - Dec 2016 **Course Co-Instructor**, *University of Lugano*, Lugano, Switzerland.  
Software Atelier I (Tools and History of Computer Science, together with Prof. Michele Lanza and Prof. Gabriele Bavota)
- Sep 2016 - Dec 2016 **Course Co-Instructor**, *University of Lugano*, Lugano, Switzerland.  
Software Engineering (together with Prof. Carlo Ghezzi)
- Sep 2015 - Dec 2015 **Course Co-Instructor**, *University of Lugano*, Lugano, Switzerland.  
Software Atelier I (Tools and History of Computer Science, together with Prof. Michele Lanza)
- Sep 2015 - Dec 2015 **Course Co-Instructor**, *University of Lugano*, Lugano, Switzerland.  
Software Engineering (together with Prof. Carlo Ghezzi)
- Sep 2014 - Dec 2014 **Course Co-Instructor**, *University of Lugano*, Lugano, Switzerland.  
Software Atelier I (Tools and History of Computer Science, together with Prof. Michele Lanza)
- Mar 2013 - Jun 2013 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Ingegneria del Software (Software Engineering), prof. Luciano Baresi
- Mar 2013 - Jun 2013 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Prova Finale (Ingegneria del Software) (Software Engineering Project), prof. Luciano Baresi
- Sep 2010 - Feb 2011 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Algoritmi e Principi dell’Informatica (Theoretical computer Science, Algorithms and Data Structures Course for Computer Science Engineering), prof. Matteo Pradella and prof. Maristella Matera
- Mar 2010 - Jul 2010 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica Teorica (Theoretical Computer Science Course for Computer Science Engineering), prof. Matteo Pradella
- Sep 2009 - Jan 2010 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica 3 (Algorithms and Data Structures Course for Computer Science Engineering), prof. Maristella Matera
- Sep 2009 - Jan 2010 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica B (Computer Science Course for Mechanical and Energy Engineering), prof. Paola Spoletini
- Mar 2009 - Jul 2009 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica Teorica (Theoretical Computer Science Course for Computer Science Engineering), prof. Matteo Pradella
- Mar 2009 - Jul 2009 **Lab Assistant**, *Politecnico di Milano*, Milano, Italy.  
Software Engineering, prof. Carlo Ghezzi
- Mar 2009 - Jul 2009 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica 3 (Algorithms and Data Structures Course for Computer Science Engineering), prof. Luciano Baresi
- Sep 2008 - Jan 2009 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica 3 (Algorithms and Data Structures Course for Computer Science Engineering), prof. Maristella Matera

- Sep 2008 - Jan 2009 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica B (Computer Science Course for Mechanical and Energy Engineering), prof. Paola Spoletini
- Mar 2008 - Jul 2008 **Lab Assistant**, *Politecnico di Milano*, Milano, Italy.  
Software Engineering, prof. Carlo Ghezzi
- Mar 2008 - Jul 2008 **Teaching Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica 2 (Hardware Architectures and Operating System Course), prof. Luciano Baresi
- Sep 2007 - Jan 2008 **Lab Assistant**, *Politecnico di Milano*, Milano, Italy.  
Informatica A (Computer Science Course for Mathematical Engineering), prof. Alessandro Campi
- Mar 2007 - Jul 2007 **Lab Tutor**, *Politecnico di Milano*, Milano, Italy.  
Software Engineering, prof. Carlo Ghezzi

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## Supervision Activities

### Co-Supervised PhD Students

- Nov 2013 - Present Luca Ponzanelli, “Holistic Recommender Systems” Co-advised with prof. Michele Lanza, University of Lugano, Lugano, Switzerland.
- Nov 2013 - Present Roberto Minelli, “Self-Adaptive IDEs” Co-advised with prof. Michele Lanza, University of Lugano, Lugano, Switzerland.
- Nov 2013 - Present Tommaso Dal Sasso, “A Game of Bugs: Managing Software Defects” Co-advised with prof. Michele Lanza, University of Lugano, Lugano, Switzerland.
- Jan 2011 - Dec 2013 Mario Sangiorgio, “Modeling, analyzing, and monitoring interacting software components” Co-advised with prof. Carlo Ghezzi, Politecnico di Milano, Milano, Italy. Currently working at G-Research (<http://www.gresearch.co.uk>).

### Co-Supervised MSc Theses

- Jun 2014 Marcello Romanelli, “Towards Visual Reflexion Models” (co-advisor). Advisor: prof. Michele Lanza, University of Lugano, Lugano, Switzerland
- Dec 2007 Guido Salvaneschi and Davide Giudici, “Comparazione degli Approcci esistenti per l'estrazione automatica di una specifica: una tecnica di validazione basata su model checking (Comparing approaches for automatic specification recovery: a model-checking based validation technique)” (co-advisor). Advisor: prof. Carlo Ghezzi, Politecnico di Milano, Milano, Italy

### Supervised PhD Minor Projects

- Jan 2009 Giorgio Orsi, “Continuous Runtime Architecture Recovery through Dynamic Behavior Analysis” (co-advisor). Advisor: prof. Carlo Ghezzi, Politecnico di Milano, Milano, Italy
- Nov 2010 Luigi Cardamone, “Dynamic Detection of Program Invariants using Genetic Programming” (co-advisor). Advisor: prof. Carlo Ghezzi, Politecnico di Milano, Milano, Italy

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## Formal Presentations

### Keynotes (at Developer Conferences)

- May 2015 “Beautiful Design, Beautiful Coding”, at I.T.A.K.E. Unconference 2015, Bucharest, Romania, <http://2015.itakeunconf.com/sessions/updated-2/>

### University and Research Institute Invited Presentations

- Aug 2013 “Synthesis of Behavior Models of Interacting Components”, at National Institute of Informatics, Tokyo, Japan. Hosted by Prof. Zhenjiang Hu
- Oct 4, 2010 “Behavioral Modeling, Inference and Validation for Component Specifications”, at Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology, Hosted by Prof. Daniel Jackson

## Industry and Funding Agency Presentations

Sep 21, 2010 ‘Black-Box Specification Inference’, at Workshop on Software Quality for ERC Projects, Venice, September 2011. Website: <http://www.erc-smscom.org/joomla/erc-workshop/erc-workshop-home.html>

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## Research Projects Collaborations

- Jan 2008 - Dec 2008 **EU-FP7-215483 S-Cube** - “European Network of Excellence in Software Services and Systems”, *Politecnico di Milano*, funded by the European Union.  
Technical Contributor
- Jan 2009 - Dec 2013 **IDEAS-ERC, Project 227977- SMScom** - “Self Managing Situated Computing”, *prof. Carlo Ghezzi, Politecnico di Milano*, funded by the European Research Council.  
Technical Contributor

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## Professional Service

### Organizing Committee Membership

- VISSOFT 2017 **The 5th IEEE Working Conference on Software Visualization**, *Program Co-Chair of the Main Research Track*.
- IWESEP 2017 **8th International Workshop on Empirical Software Engineering in Practice**, *Publicity co-chair*.  
<https://iwesep2017.github.io>
- VISSOFT 2016 **The 4th IEEE Working Conference on Software Visualization**, *Program Co-Chair of the ERA/NIER Track*.  
<http://vissoft16.ysu.edu>

### Program Committee Membership

- SANER 2017 **24rd IEEE International Conference on Software Analysis, Evolution, and Reengineering**.  
<http://saner.aau.at>
- IWESEP 2017 **8th International Workshop on Empirical Software Engineering in Practice**.  
<https://iwesep2017.github.io>
- ICPC 2017 **25th International Conference on Program Comprehension**.  
(ERA Track) <http://icpc2017.unibas.it>
- FSE 2016 **24th International Symposium on the Foundations of Software Engineering**.  
(TD Track) <https://www.cs.ucdavis.edu/fse2016/>
- ICSME 2016 **32nd IEEE International Conference on Software Maintenance and Evolution**.  
(TD Track) <http://icsme2016.github.io>
- MSR 2016 **13th Working Conference on Mining Software Repositories**.  
<http://2016.msrconf.org>
- IWESEP 2016 **7th International Workshop on Empirical Software Engineering in Practice**.  
<http://iwesep2016.naist.jp>
- SANER 2016 **23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering**.  
<http://saner.inf.usi.ch>
- VISSOFT 2015 **3rd IEEE Working Conference on Software Visualization**.  
(NIER/TD Track) <http://vissoft.dcc.uchile.cl>
- ESEC/FSE 2015 **10th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering**.  
(TD Track) <http://esec-fse15.dei.polimi.it/tools.html>



ICE 2015 **8th Interaction and Concurrency Experience (ICE 2015)**, *co-located event of the 10th International Federated Conference on Distributed Computing Techniques (DisCoTec 2015)*.

<http://discotec2015.inria.fr/workshops/ice-2015/index.html>

ICSE 2015 **ACM Student Research Competition**, *co-located event of ICSE 2015, 37th ACM/IEEE (ACM SRC) International Conference on Software Engineering*.

<http://2015.icse-conferences.org/call-dates/call-for-contributions/acm-src>

SCORE-it 2015 **Italian Student Contest on Software Engineering**, *co-located event of ICSE 2015, 37th ACM/IEEE International Conference on Software Engineering*.

<http://www.score-contest.it>

MUD 2014 **4th workshop on Mining Unstructured Data**, *co-located event of ICSME 2014, 30th International Conference on Software Maintenance and Evolution*.

<http://sback.it/mud2014/>

### [Journal Reviewer Service](#)

Springer EMSE **Empirical Software Engineering, 2016**.

<http://www.springer.com/computer/swe/journal/10664>

Elsevier JLAMP **Elsevier Journal of Logical and Algebraic Methods in Programming, 2016**.

<http://www.journals.elsevier.com/journal-of-logical-and-algebraic-methods-in-program>

ACM TOSEM **ACM Transactions on Software Engineering and Methodology, 2012**.

<http://tosem.acm.org>

IEEE TSE **IEEE Transactions on Software Engineering, 2011,2012,2015,2016**.

<http://www.computer.org/portal/web/tse>

Springer Computing **Springer Computing, 2012-2013**.

<http://www.springer.com/computer/journal/607>

Springer SOCA **Springer Service-oriented Computing and Applications, 2009-2011**.

<http://www.springer.com/computer/communication+networks/journal/11761>

### [Additional Reviewer Service](#)

ICSE 2015 **37th International Conference on Software Engineering**.

ICSE 2013 **35th International Conference on Software Engineering**.

ESEC/FSE 2011 **8th joint meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering**.

ICSE 2011 **33rd International Conference on Software Engineering**.

FSE 2010 **18th ACM SIGSOFT Symposium on Foundations of Software Engineering**.

ICSE 2010 **32nd International Conference on Software Engineering**.

ASE 2009 **24th International Conference on Automated Software Engineering**.

ESEC/FSE 2009 **7th joint meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering**.

FSE 2008 **16th ACM SIGSOFT Symposium on Foundations of Software Engineering**.

ICSE 2008 **30nd International Conference on Software Engineering**.

### [Other](#)

-Student volunteer at the 30th International Conference on Software Engineering (ICSE 2008)

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## Fellowships and Grants

- Oct 2011 - Oct 2012 Roberto Rocca Postdoctoral Fellowship. “Enforcing the link between requirements and software behavior through model synthesis”, with professors Daniel Jackson (MIT, EECS) and Carlo Ghezzi (Polimi, DEI) Website: <http://web.mit.edu/progettorocca/fellowships/fellows.html>
- Sep 2007 Student travel grant for attending the *6th joint meeting of European Software Engineering Conference and Foundations of Software Engineering*, granted by ACM SIGSOFT

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## Memberships

- ACM SIGSOFT
- IEEE and IEEE Computer Society
- Swiss Informatics Society, SI
- CHOOSE (Swiss Group for Object-Oriented Systems and Environments, <http://www.choose.s-i.ch>)

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## Technical Skills And Competences

Programming Languages	<p>Experience in programming comes mainly from academic tool development, education and teaching. In particular:</p> <ul style="list-style-type: none"><li>○ I have advanced knowledge of the Java programming language with more than 8 years of development of academic tools and prototypes (e.g., tools for papers [J1,C1,C2,C5,W1,W2]).</li><li>○ I am a recent Scala enthusiast. I acquired knowledge of the Scala programming language through successful attendance of Martin Ordersky's introductory course on coursera, further attendance of the course on reactive programming, and development of new academic tools and prototypes written in Scala for papers like [C13,C14,C22,C23].</li><li>○ I have minor experience but discrete knowledge of the following other languages:<ul style="list-style-type: none"><li>- Swift;</li><li>- Python, C/C++, Matlab (teaching);</li><li>- Smalltalk (helped co-advised PhD student Roberto Minelli for paper [C19] and further developments of it);</li><li>- C#, Javascript, Lisp, Ada, Pascal (from academic education/projects).</li></ul></li></ul>
Operating Systems	Experience as a User of Apple mac OS X, GNU/Linux, and Microsoft Windows.
Databases Management and Languages	I have basic knowledge and experience with the SQL language and I had experience with products like PostgreSQL and Microsoft SQL Server. Academic experience on XPath and OQL.
Software Design and Verification	I have knowledge of UML from mainly a teaching, research and development perspective. I have also experience on Alloy and the use of formal methods (e.g., model checking) on both requirement engineering, analysis of problem domains and program development.
IDEs and Tools to Support Development	<p>Experience with the following IDEs, Frameworks and Tools:</p> <ul style="list-style-type: none"><li>○ IDEs: i) Eclipse (Java and Scala Development); ii) Microsoft Visual Studio (C#); iii) Pharo IDE (Smalltalk).</li><li>○ Parser Generators: i) Flex&amp;Bison; ii) ANTLR; iii) Scala Parser Combinators and Parboiled.</li><li>○ Version Control: i) CVS; ii) Subversion; iii) Git.</li><li>○ Testing: i) JUnit; ii) Scalatest.</li><li>○ Specification: i) JML; ii) JForge.</li></ul>
Other Skills and Competences	Given my academic background, I have passion for teaching and supervising. In particular, I am actually co-advising 4 PhD students and I co-advised 1 PhD student who successfully finished his PhD. I also helped re-designing the "Software Atelier I" course at University of Lugano by including a module on the history of computer science.

### Additional Education

Dec 2015 - Jan 2016	<b>Coursera course on "iOS App Development Basics", by Prof. Parham Aarabi (University of Toronto), With Verified Certificate of Accomplishment, Grade: 96.0%.</b> <a href="https://www.coursera.org/account/accomplishments/records/wNPbWc3ejUEP9U89">https://www.coursera.org/account/accomplishments/records/wNPbWc3ejUEP9U89</a>
Nov - Dec 2015	<b>Coursera course on "Introduction on Swift Programming", by Prof. Parham Aarabi (University of Toronto), With Verified Certificate of Accomplishment, Grade: 97.9%.</b> <a href="https://www.coursera.org/account/accomplishments/certificate/GMBD9QD8RXPR">https://www.coursera.org/account/accomplishments/certificate/GMBD9QD8RXPR</a>

- Mar - May 2015 **Coursera course on “Principles of Reactive Programming”**, by Prof. Martin Odersky (*École Polytechnique Fédérale de Lausanne*), With Verified Certificate of Accomplishment, Grade: 100%.  
<https://www.coursera.org/account/accomplishments/records/wNPbWc3ejUEP9U89>
- Mar - Jun 2013 **Coursera course on “Functional Programming Principles in Scala”**, by Prof. Martin Odersky (*École Polytechnique Fédérale de Lausanne*), With Statement of Accomplishment.
- Aug 2008 **2008 Marktoberdorf Summer School on “Engineering Methods and Tools for Software Safety and Security”**, *Founded by Advanced Study Institute of the NATO Science for Peace and Security Programme.*
- Jul 2008 **USI - CMU Summer School on Dependable Computer Systems**, *Organized jointly by: Faculty of Informatics, University of Lugano and School of Computer Science, Carnegie Mellon University.*

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## Languages

Italian	<b>native</b>
Sardinian	<b>native</b>
English	<b>fluent</b>
French	<b>beginner</b>

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## Interests

Photography (as a hobby; see <http://500px.com/AndreaMocci> for a partial portfolio.)

Politics

Human Rights

Philosophy

Physics