Paolo Tonella – *Curriculum Vitae*

Paolo Tonella is head of the Software Engineering (SE) Research Unit at Fondazione Bruno Kessler, Trento, Italy. He received his laurea degree cum laude in Electronic Engineering from the University of Padova (awarded as best student) in 1992, and his PhD degree in Software Engineering from the same University, in 1999, with the thesis *Code Analysis in Support to Software Maintenance*. Since 1994 he has been a researcher of the Software Engineering group at IRST. He was tenured in 1997 (level 3), in 2003 he was promoted to level 2 and in 2010 to level 1. He has been leading the SE unit since 2007.

Paolo Tonella participated in several research projects on software analysis and testing, among which *Gesbank Evolution*, a project funded by IBT (Informatica Bancaria Trentina) for the migration of a large legacy banking system to Java (2007–present) and *Fittest* (2010-2013), an FP7 European project on Future Internet Testing. In 2007-2011 he acted as a project reviewer for the European Commission (projects EVOTEST, SHADOWS, PROTEST). He is the author of the book *Reverse Engineering of Object Oriented Code*, Springer, 2005. He wrote over 100 peer reviewed conference/workshop papers and over 30 journal papers (the updated publication list can be found at http://se.fbk.eu/tonella).

In 2011, Paolo Tonella was the recipient of the ICSE Most Influential Paper (MIP) award, for his paper: Filippo Ricca and Paolo Tonella, *Analysis and Testing of Web Applications*, ICSE 2001. In 2007, Paolo Tonella was ranked among the top-50 Software Engineering scholars by the Communications of the ACM (vol. 50, n. 6, pp. 81-85, June 2007). Paolo Tonella was Program Chair of ICSM (2011) and ICPC (2007); Program and General Chair of WSE and SCAM. He was General Chair of ISSTA 2010 (Trento-IRST) and he will be General Chair of ICSM 2012 (Riva del Garda). Among the others, he served in the program committees of ICSE, ICSM, ISSTA, ICST, ICPC, SCAM, CSMR, WCRE. He regularly reviews papers for journals such as TSE, TOSEM (awarded as one of the best reviewers in 2007-2008 and in 2009-2010), STVR, JSME, EMSE. His current research interests include reverse engineering and re-engineering, software testing and analysis, empirical studies.

Selected publications:

1. Paolo Tonella and Alessandra Potrich. *Reverse Engineering of Object Oriented Code*. Springer, New York, USA. 2005. ISBN: 0-387-40295-0.
2. David Binkley, Mariano Ceccato, Mark Harman, Filippo Ricca, Paolo Tonella. *Tool-Supported Refactoring of Existing Object-Oriented Code into Aspects*. In IEEE Transactions on Software Engineering (**TSE**), vol. 32, n. 9, pp. 698-717. September 2006.
3. Paolo Tonella, Mariano Ceccato. *Refactoring the Aspectizable Interfaces: an Empirical Assessment*. IEEE Transactions on Software Engineering (**TSE**), vol. 31, n. 10, pp. 819-832. October 2005.
4. Paolo Tonella. *Using a Concept Lattice of Decomposition Slices for Program Understanding and Impact Analysis*, IEEE Transactions on Software Engineering (**TSE**), vol. 29, n. 6, pp. 495-509, June 2003.
5. Paolo Tonella. *Concept Analysis for Module Restructuring*. IEEE Transactions on Software Engineering (**TSE**), vol. 27, n. 4, pp. 351-363, April 2001.
6. Filippo Ricca, Massimiliano Di Penta, Marco Torchiano, Paolo Tonella, Mariano Ceccato, and Corrado Aron Visaggio. *Are Fit tables really talking? A series of experiments to understand whether Fit tables are useful during evolution tasks*. In Proceedings of the 30th International Conference on Software Engineering (**ICSE**), pages 361-370, May 2008.
7. Filippo Ricca, Massimiliano Di Penta, Marco Torchiano, Paolo Tonella, Mariano Ceccato. *The Role of Experience and Ability in Comprehension Tasks Supported by UML Stereotypes*. In Proc. of the International Conference on Software Engineering (**ICSE**), pp. 375-384. May 2007.
8. Paolo Tonella. *Evolutionary Testing of Classes*, Proc. of the International Symposium on Software Testing and Analysis (**ISSTA**) , pp. 119-128, Boston, MA, USA, July 2004.
9. F. Ricca and P. Tonella, *Analysis and Testing of Web Applications*. Proc. of the International Conference on Software Engineering (**ICSE**), pp. 25-34, Toronto, Canada, May 12-19, 2001.

10. P. Tonella, G. Antoniol, R. Fiutem and E. Merlo. *Flow Insensitive C++ Pointers and Polymorphism Analysis and its Application to Slicing*. Proc. of the International Conference on Software Engineering (**ICSE**), pp. 433-443, Boston, Massachussets, USA, May 17-23, 1997.

Education and professional career:

1987 High school Liceo Scientifico "L. Da Vinci", Treviso, Italy. Final mark: 60/60.
1992 University of Padova, Laurea degree in Electronic Engineering. Final mark: 110/110 and laude (awarded as the best student who graduated in 1992). Thesis' title: *Kohonen's Neural Networks for the Reconstruction of Grey's Timbre Space*. Advisor: prof. Giovanni De Poli.
1994 Researcher at IRST, Software Engineering group (led by Giulio Antoniol).
1997 Confirmed researcher at IRST (level 3).
1999 University of Padova, PhD in Software Engineering. Thesis' title: *Code Analysis in Support to Software Maintenance*. Advisor: prof. Franco Bombi.
2003 Level 2 researcher at IRST.
2007 Head of Software Engineering research unit at Fondazione Bruno Kessler.
2010 Level 1 researcher at FBK.

Projects:

ITALO (1997-1999): European project ITALO (Improvement of the Testing Activities for the Development of Object Oriented Software), with Sodalia, Trento, having the goal of improving the component test process.

SIA (1998): Analysis of a large software system (4.7 million lines of C code), for SIA, Milan, aimed at the identification of code clones and dead functions. Pointer analysis was used to resolve calls made through function pointers.

CERN (2000-2007): Analysis and improvement of the C++ code quality developed at CERN, Geneva, within the Alice LHC experiment. Project leader.

WebFAQ (2001-2004): Fondo Unico (PAT) project (Web: Flexible Access and Quality), whose objective was the study of techniques for the improvement of Web site access and quality. Workpackage leader.

ReTrust (2006-2009): STREP European project (Remote Entrusting) on the remote authentication of software execution, in collaboration with University of Trento, Leuven, St. Petersburg, Politecnico of Torino and Gemalto. Advisory board and external contributor.

IBT (2007-2010): Industrial project with IBT (Informatica Bancaria Trentina), for the reengineering of a large (8 million lines of BAL code) legacy application and its migration toward a modern, object-oriented architecture. Project leader.

Fittest (2010-2013): European FP7 STREP project (Future Internet Testing). Workpackage leader and key researcher for FBK.

Awards and recognitions:

- **Best student** who graduated at the University of Padova in the academic year 1991-1992.
- **Best paper award**: G. Antoniol, A. Potrich, P. Tonella and R. Fiutem, *Evolving Object Oriented Design to Improve Code Traceability*. Proc. of the International Workshop on Program Comprehension (IWPC), pp. 151-160, Pittsburgh, PA, USA, May 5-7, 1999.
- **Best paper award**: Filippo Ricca and Paolo Tonella, *Anomaly detection in Web applications: a review of already conducted case studies*. Proc. of the 9th European Conference on Software Maintenance and Reengineering (CSMR), pp. 385-394, Manchester, UK, March 2005.
- **Alice industrial award**: a prize which is given by CERN (Alice experiment) to project partners, in recognition of successful collaboration. The Software Engineering group at IRST was awarded for the provisioning of advanced code analysis tools used in the development of the offline software (June 2006).
- **Top-50 SE scholar**: Paolo Tonella was ranked among the top-50 Software Engineering scholars by the Communications of the ACM (vol. 50, n. 6, pp. 81-85, June 2007).
- **Best paper award**: Cu D. Nguyen, Anna Perini and Paolo Tonella. *Constraint-based Evolutionary Testing of Autonomous Distributed Systems*. In Proc. of the International Workshop on Search-Based Software Testing (SBST), April 9-11, 2008.
- **Best TOSEM reviewer**: Paolo Tonella was awarded as one of the 12 best reviewers of the journal *ACM Transaction of Software Engineering and Methodology*, in 2007-2008.
- **Most influential WSE paper award**: Paolo Tonella and Filippo Ricca. *Dynamic Model Extraction and Statistical Analysis of Web Applications*. Proc. of WSE 2002, International Workshop on Web Site Evolution, pp. 43-52, Montreal, Canada, October 2002. Award presented at WSE 2008.
- **Best paper award:** Alessandro Marchetto and Paolo Tonella. *Search-Based Testing of Ajax Web Applications*. In Proceedings of the International Symposium on Search Based Software Engineering (SSBSE), Windsor (London), UK, 2009.
- **ICSE 2011 Most Influential Paper award**: Filippo Ricca and Paolo Tonella, *Analysis and Testing of Web Applications*, Proc. of ICSE 2001, International Conference on Software Engineering, pp. 25-34, Toronto, Canada, May 12-19, 2001.

Teaching and tutorials:

1997-2000 Lectures at the Master in Software Engineering, Padova.

2000-2001 Undergraduate course: *Software Engineering*, at the University of Brescia, Italy.

2001-2002 Graduate course: *Analysis and Testing of Software Systems*, at the International Doctorate School in Information and Communication Technologies, University of Trento, Italy.

2002-2004 Lectures at the CERN Summer School.

2002-2011 MSc degree course: *Software Analysis and Testing*, at the University of Trento, Italy.

2004 Tutorial: *Formal Concept Analysis in Software Engineering*. Int. Conf. on Software Engineering, May 24, 2004. Edinburgh, Scotland, United Kingdom.

2005 Tutorial: *Reverse Engineering of Object Oriented Code*. Int. Conf. on Software Engineering, May 17, 2005. St. Louis, Missouri, USA.

2006 Distinguished lecture: *Test Case Prioritization using the Case Based Ranking Methodology*, at Ecole Polytechnique Montreal, August 2006.

2009 Distinguished lecture: *Research challenges in model based/search based testing*, at Queen's University, Kingston, April 2009.
2010 Invited talk: *Research challenges in model based/search based testing*, at Universidad Politecnica de Valencia, Spain, February 2010.

Committees and reviewing:

ICSE, Int. Conference on Software Engineering. Program committee (2012).
ICSM, IEEE Int. Conference on Software Maintenance. Program committee. Steering committee (2007-2009). Program chair (2011). General chair (2012).
ISSTA, ACM Int. Symposium on Software testing and Analysis. Program committee. General chair (2010).
SCAM, IEEE Int. Working Conf. on Source Code Analysis and Manipulation. Program committee. Steering committee (2002-2005). Program chair (2003). General chair (2005).
ICPC, IEEE Int. Conference on Program Comprehension. Program committee. Program chair (2007).
WSE, IEEE Int. Symposium on Web Site Evolution. Program committee. Program chair (2002). General chair (2004).
ICST, IEEE International Conference on Software Testing. Program committee.
CSMR, IEEE European Conference on Software Maintenance and Reengineering. Program committee.
ICSOC, International Conference on Service Oriented Computing. Program committee.
WCRE, Working Conference on Reverse Engineering. Program committee.
WebTest, Int. Workshop on Web Testing. General chair (2009).
SSBSE, Int. Symposium on Search Based Sofwtare Engineering. Program committee.
SBST, Int. Workshop on Search Based Software testing. Program committee.
IWPSE, Int. Workshop on Principles of Software Evolution. Program committee.
STEP, Software Technology and Engineering Practice. Program committee and general chair of the Workshop on Empirical Studies in Reverse Engineering (2005).
GECCO, Genetic and Evolutionary Computation Conference (SBSE track, Search-based Software Engineering). Program committee.
Taic Part, Testing–Academic and Industrial Conference, Practice and Research Techniques. Program committee.
WESS, IEEE Int. Workshop on Empirical Studies on Software Maintenance. Program committee.

TSE, IEEE Transactions on Software Engineering, IEEE Computer Society. Reviewer.
TOSEM, ACM Transactions on Software Engineering and Methodology. Reviewer.
JSME, Journal of Software Maintenance and Evolution, Wiley and Sons. Reviewer.
EMSE, Empirical Software Engineering, Springer. Reviewer.
JASE, Automated Software Engineering Journal, Springer. Reviewer.
IST, Information and Software Technology, Elsevier. Reviewer.
IEEE Software, IEEE Computer Society. Reviewer.
STVR, Software Testing, Verification and Reliability, Wiley and Sons. Reviewer.
JSS, Journal of Systems and Software, Elsevier. Reviewer.
SQJ, Software Quality Journal, Springer. Reviewer.

EvoTest, *Evolutionary Testing for Complex Systems*, IST-33472 FP6 EU project. Project reviewer for the European Commission.
Shadows, *Self-Healing Approach to Designing Complex Software Systems*, IST-35157 FP6 EU project. Project reviewer for the European Commission.
NSERC, *Natural Sciences and Engineering research Council of Canada*. Project proposal reviewer.
FWF, *Austrian Science Fund*. Project proposal reviewer.
NWO, *The Netherlands Organization for Scientific research*. Project proposal reviewer.

Full publication list:

Year 2011
1. Alessandro Marchetto, Roberto Tiella, Paolo Tonella, Nadia Alshahwan and Mark Harman, Crawlability metrics for automated web testing. In *International Journal on Software Tools for Technology Transfer,* vol. 13, n. 2, pp. 131-149, 2011.
2. Mariano Ceccato, Paolo Tonella, Codebender: Remote software protection using orthogonal replacement. In *IEEE Software,* vol. 28, n. 2, pp. 28-34, 2011.

Year 2010
1. Filippo Ricca, Massimiliano Di Penta, Marco Torchiano, Paolo Tonella, Mariano Ceccato, How Developers' Experience and Ability Influence Web Application Comprehension Tasks Supported by UML Stereotypes: A Series of Four Experiments. In *IEEE Transactions on Software Engineering,* vol. 36, n. 1, pp. 96-118. January-February 2010.
2. Mariano Ceccato, Thomas Roy Dean, Paolo Tonella, Davide Marchignoli, Migrating legacy data structures based on variable overlay to Java, in *Journal of Software Maintenance and Evolution,* vol. 22, n. 3, pp. 211-237, April 2010.
3. Cu Nguyen, Anna Perini, Paolo Tonella, Goal-oriented testing for MASs, in *International Journal of Agent-Oriented Software Engineering,* vol. 4, n. 1, pp. 79-109, 2010.
4. Marco Torchiano, Filippo Ricca, Paolo Tonella, Empirical comparison of graphical and annotation-based re-documentation approaches. In *IET Software,* vol. 4, n. 1, pp. 15-31. February 2010.
5. Chiara Di Francescomarino, Paolo Tonella, Supporting Ontology-based Semantic Annotation of Business Processes with Automated Suggestions. In *Int. Journal of Information System Modeling and Design* vol. 1, n. 2, pp. 59-84, April-June 2010.
6. Mariano Ceccato, Paolo Tonella, Static analysis for enforcing intra-thread consistent locks in the migration of a legacy system, In *Proceedings of the International Conference on Software Maintenance (ICSM),*, Timisoara, Romania, September 2010.
7. Paolo Tonella, Angelo Susi, Francis Palma, Using Interactive GA for Requirements Prioritization, In *Proceedings of the International Symposium on Search Based Software Engineering (SSBSE),*, Benevento, Italy, September 2010.
8. Surafel Lemma Abebe, Paolo Tonella, Natural Language Parsing of Program Element Names for Concept Extraction, In *Proceedings of the International Conference on Program Comprehension (ICPC),*, Braga, Minho, Portugal, pp. 156-159, 2010.
9. Alessandro Marchetto, Paolo Tonella, Filippo Ricca, Under and Over Approximation of State Models Recovered for Ajax Applications, In *Proceedings of the European Conference on Software Maintenance and Reengineering (CSMR)*, IEEE Computer Society, pp. 241-245, Madrid, Spain, 2010.
10. Alessandro Marchetto, Cu D. Nguyen, Chiara Di Francescomarino, Nauman A. Qureshi, Anna Perini, Paolo Tonella, A Design Methodology for Real Services, In *Proceedings of the Int. Workshop on Principles of Engineering Service Oriented Systems,* Cape Town, South Africa, 2010.
11. N. Alshahwan, Y. Jia, K. Lakhotia, G. Fraser, D. Shuler, and P. Tonella. Automock: Automated synthesis of a mock environment for test case generation. In M. Harman, H. Muccini, W. Schulte, and T. Xie, editors, *Practical Software Testing : Tool Automation and Human Factors,* number 10111 in Dagstuhl Seminar Proceedings, Dagstuhl, Germany, 2010.
12. Tanja Vos and Paolo Tonella, Future Internet Testing Challenges. In *Proc. of the 4th workshop on Modeling, Design, and Analysis for the Service Cloud (MDA4ServiceCloud),* Paris, France, 15th June 2010.
13. C. Di Francescomarino, C. Leonardi, A. Marchetto, Nauman A. Qureshi, Cu D. Nguyen, L. Sabatucci, A. Perini, A. Susi, P. Tonella, and M. Zancanaro, A bit of Persona, a bit of Goal, a bit of Process ... a recipe for Analyzing User Intensive Software Systems. In *Proc. of iStar 2010, 4th International i* Workshop,* pp. 36-40, Hammamet, Tunisia, June 07-08, 2010.

Year 2009
1. Mariano Ceccato, Thomas Roy Dean and Paolo Tonella, Recovering structured data types from a legacy data model with overlays, *Information and Software Technology*, vol. 51, no. 10, pp. 1454-1468, Elsevier 2009.
2. Mariano Ceccato, Paolo Tonella, Dynamic Aspect Mining, In *IET Software*, vol. 3, no. 4, pp. 321-336, 2009.
3. Mariano Ceccato, Mila Dalla Preda, Jasvir Nagra, Christian Collberg and Paolo Tonella, Trading-off security and performance in barrier slicing for remote software entrusting, In *Journal of Automated Software Engineering*, vol. 16, no. 2, pp. 235-261, Springer 2009.
4. Filippo Ricca, Marco Torchiano, Massimiliano Di Penta, Mariano Ceccato, Paolo Tonella, Using Acceptance Tests as a Support for Clarifying Requirements: a Series of Experiments, In *Information and Software Technology*, volume 51, issue 2, pages 270-283, February 2009.
5. Shin Yoo, Mark Harman, Paolo Tonella, Angelo Susi, Clustering test Cases to Achieve Effective and Scalable Prioritisation Incorporating Expert Knowledge, In *Proceedings of the International Symposium on Software testing and Analysis (ISSTA)*, Chicago, USA, 2009.
6. Cu Nguyen, Simon Miles, Anna Perini, Paolo Tonella, Mark Harman, Michael Luck, Evolutionary Testing of Autonomous Software Agents, In *Proceedings of the 8th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, Budapest, Hungary, 2009.
7. M. Ceccato, M. Di Penta, J. Nagra, P. Falcarin, F. Ricca, M. Torchiano and P. Tonella, The Effectiveness of Source Code Obfuscation: an Experimental Assessment, In *Proceedings of the 17th IEEE International Conference on Program Comprehension (ICPC)*, Vancouver, Canada, 2009.
8. Surafel Lemma Abebe, Sonia Haiduc, Paolo Tonella and Andrian Marcus, Lexicon Bad Smells in Software. In Proceedings of the 16th Working Conference on Reverse Engineering (WCRE), Lille, France, 2009.

9. Chiara Di Francescomarino, Chiara Ghidini, Marco Rospocher, Luciano Serafini and Paolo Tonella, Semantically-aided business process modeling. In Proceedings of the 8th International Semantic Web Conference (ISWC), Westfields Conference Center, Washington, DC, USA,2009.

10. Chiara Di Francescomarino, Alessandro Marchetto and Paolo Tonella, Reverse Engineering of Business Processes exposed as Web Applications, In *Proceedings of the European Conference on Software Maintenance and Reengineering (CSMR)*, Kaiserslautern, Germany, 2009.

11. Surafel Lemma Abebe, Sonia Haiduc, Andrian Marcus, Paolo Tonella, Giuliano Antoniol, Analyzing the Evolution of the Source Code Vocabulary, In *Proceedings of the European Conference on Software Maintenance and Reengineering (CSMR)*, Kaiserslautern, Germany, 2009.

12. Alessandro Marchetto, Paolo Tonella, Search-Based Testing of Ajax Web Applications, In *Proceedings of the International Symposium on Search Based Software Engineering (SSBSE)*, Windsor (London), UK, 2009. *Best paper award*.

13. Marco Rospocher, Chiara Di Francescomarino, Chiara Ghidini, Luciano Serafini and Paolo Tonella, Collaborative Specification of Semantically Annotated Business Processes, In Proceedings of the 3rd International Workshop on Collaborative Business Processes (CBP), Ulm, Germany, September 2009.

14. Mariano Ceccato, Paolo Tonella, Mila Dalla Preda and Anirban Majumdar, Remote software protection by orthogonal client replacement, In *Proceedings of the 24th ACM Symposium on Applied Computing (SAC)*, Honolulu, Hawaii, USA, 2009.

15. Chiara Di Francescomarino and Paolo Tonella, Cooperative Aspect Oriented Programming for Executable Business Processes, In *Proceedings of the Int. Workshop on Principles of Engineering Service Oriented Systems*, Vancouver, Canada, 2009.

16. Chiara Di Francescomarino and Paolo Tonella, Supporting Ontology-based Semantic Annotation of Business Processes with Automated Suggestions In *Proceedings of the Int. Conf. on Exploring Modeling Methods for Systems Analysis and Design*, Amsterdam, The Netherlands, 2009.

Year 2008

1. Alessandro Marchetto, Filippo Ricca and Paolo Tonella, A Case Study-based Comparison of Web Testing Techniques applied to AJAX Web Applications, *International Journal on Software Tools for Technology Transfer (STTT)*, vol. 10, no. 6, pp. 477-492, Springer Berlin / Heidelberg 2008.

2. Filippo Ricca, Emanuele Pianta, Paolo Tonella, Christian Girardi. Improving Web site understanding with keyword-based clustering. In *Journal of Software Maintenance and Evolution: Research and Practice*, vol. 20, n. 1, pp. 1-29. January/February 2008.

3. Sapna Ponaraseri, Angelo Susi, Paolo Tonella, Using the Planning Game for Test Case Prioritization, In *Proceedings of the 19th International Symposium on Software Reliability Engineering (ISSRE)*, Seattle / Redmond, WA, USA, 2008.

4. Mariano Ceccato, Thomas Roy Dean, Paolo Tonella and Davide Marchignoli, Data Model Reverse Engineering in Migrating a Legacy System to Java, In *Proceedings of the 15th Working Conference on Reverse Engineering, (WCRE)*, Antwerp, Belgium, 2008.

5. Chiara Di Francescomarino, Chiara Ghidini, Marco Rospocher, Luciano Serafini and Paolo Tonella, Reasoning on Semantically Annotated Processes, In *Proceedings of the International Conference on Service-Oriented Computing*, pages 132-146, 2008.

6. Mariano Ceccato, Thomas Roy Dean and Paolo Tonella, Using Program Transformations to Add Structure to a Legacy Data Model, In *Proceedings of the Working Conference on Source Code Analysis and Manipulation*, pages 197-206, IEEE Computer Society, 2008.

7. Filippo Ricca, Massimiliano Di Penta, Marco Torchiano, Paolo Tonella, Mariano Ceccato, and Corrado Aron Visaggio. Are Fit tables really talking? A series of experiments to understand whether Fit tables are useful during evolution tasks. In *Proceedings of the 30th International Conference on Software Engineering (ICSE 2008)*, pages 361-370. IEEE Computer Society, 10-18 May 2008.

8. Alessandro Marchetto and Paolo Tonella. State-based testing of Ajax web applications. In *Proceedings of the International Conference on Software Testing (ICST)*, IEEE Computer Society, April 2008.

9. Cu Nguyen, Anna Perini, Paolo Tonella. Ontology-based Test Generation for Multi Agent Systems. In *Proceedings of the 7th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2008)*, pages 1315-1318, 12-16 May 2008.

10. Mariano Ceccato, Jasvir Nagra and Paolo Tonella. Distributing trust verification to increase application performance. In D. E. Baz, J. Bourgeois and F. Spies editors, *Proc. of the 16th Euromicro Conference on Parallel, Distributed and Network-based Processing (PDP 2008)*, pages 604-610. IEEE Computer Society, February 2008.

11. Mariano Ceccato, Yoram Ofek and Paolo Tonella. Remote entrusting by run-time software authentication. In V. Geffert,J. Karhumaki, A. Bertoni, B. Preneel, P. Navrat, and M. Bielikova, editors, *Proceedings of the 34th Conference on Current Trends in Theory and Practice of Computer Science (SOFSEM 2008)*, volume 4910 of Lecture Notes in Computer Science, pages 83-97. Springer, 2008.

12. Mariano Ceccato, Paolo Tonella, and Cristina Matteotti. Goto elimination strategies in the migration of legacy code to java. In K. Kontogiannis, C. Tjortjis, and A. Winter, editors, *Proceedings of the 12th European Conference on Software Maintenance and Reengineering (CSMR)*, pages 53-62. IEEE Computer Society, April 2008.

13. M. Ceccato, M. Di Penta, J. Nagra, P. Falcarin, F. Ricca, M. Torchiano and P. Tonella, Towards experimental evaluation of code obfuscation techniques, In *Proceedings of the QoP `08: Proceedings of the 4th ACM workshop on Quality of protection*, Alexandria (Virginia), USA, 2008.

14. Chiara Di Francescomarino and Paolo Tonella, Crosscutting Concern Documentation by Visual Query of Business Processes, In *Proceedings of the International Workshop on Business Process Design*, 2008.

15. Francesca Longo, Roberto Tiella, Paolo Tonella and Adolfo Villafiorita, Measuring the Impact of Different Categories of Software Evolution, In *Proceedings of the International Workshop on Software Measurement,* pages 344-351, 2008.
16. Paolo Tonella, Filippo Ricca, Dynamic Model Extraction and Statistical Analysis of Web Applications: Follow-up after 6 years, In *Proceedings of the International Symposium on Web Site Evolution,* pages 3-10, IEEE Computer Society, 2008.
17. Cu D. Nguyen, Anna Perini and Paolo Tonella. Experimental Evaluation of Ontology-based Test Generation for Multi-Agent Systems. In *Proc. of the 9th International Workshop on Agent-Oriented Software Engineering,* at AAMAS, 2008.
18. Cu D. Nguyen, Anna Perini and Paolo Tonella. Constraint-based Evolutionary Testing of Autonomous Distributed Systems. In *Proc. of the International Workshop on Search-Based Software Testing (SBST),* April 9-11, 2008. *Best paper award.*

Year 2007
1. Filippo Ricca, Massimiliano Di Penta, Marco Torchiano, Paolo Tonella, Mariano Ceccato. How Design Notations affect the Comprehension of Web Applications. In *Journal of Software Maintenance and Evolution: Research and Practice,* vol. 19, n. 5, pp. 339-359. September/October 2007.
2. Paolo Tonella, Marco Torchiano, Bart Du Bois, and Tarja Systa. Empirical studies in reverse engineering: state of the art and future trends. In *Empirical Software Engineering,* vol. 12, n. 5, pp 551-571. October 2007.
3. Andy Kellens, Kim Mens, Paolo Tonella. A Survey of Automated Code-Level Aspect Mining Techniques. In *Transactions on Aspect Oriented Software Development,* vol. 4 (LNCS 4640), pp. 145-164. Springer, 2007.
4. Giuliano Antoniol, Yann-Gael Gueheneuc, Ettore Merlo and Paolo Tonella. Mining the Lexicon Used by Programmers during Software Evolution. In *Proc. of the International Conference on Software Maintenance (ICSM),* pp. 14-23. October 2007.
5. Mariano Ceccato, Mila Dalla Preda, Jasvir Nagra, Christian Collberg and Paolo Tonella. Barrier Slicing for Remote Software Trusting. In *Proc. of the Working Conference on Source Code Analysis and Manipulation (SCAM),* pp. 27-36. September-October 2007.
6. Filippo Ricca, Massimiliano Di Penta, Marco Torchiano, Paolo Tonella, Mariano Ceccato. The Role of Experience and Ability in Comprehension Tasks Supported by UML Stereotypes. In *Proc. of the International Conference on Software Engineering (ICSE),* pp. 375-384. May 2007.
7. Filippo Ricca, Marco Torchiano, Mariano Ceccato, Paolo Tonella. Talking Tests: an Empirical Assessment of the Role of Fit Acceptance Tests in Clarifying Requirements. In *Proc. of the International Workshop on the Principles of Software Evolution,* September 3-4, 2007.
8. Alessandro Marchetto, Filippo Ricca and Paolo Tonella. Empirical Validation of a Web Fault Taxonomy and its usage for Fault Seeding. In *Proc. of the 9th IEEE International Symposium on Web Site Evolution,* October 5-6, 2007.
9. Filippo Ricca, Marco Torchiano, Massimiliano Di Penta, Mariano Ceccato and Paolo Tonella. Executable Fit tables are useful in maintenance tasks? In *Proceedings of the Third International ERCIM Symposium on Software Evolution (Software Evolution 2007),* October 5, 2007.
10. Alessandro Marchetto, Paolo Tonella and Filippo Ricca. Testing Techniques applied to AJAX Web Applications. *Workshop on Web Quality, Verification and Validation (WQVV)*, at the *International Conference on Web Engineering*, July 2007.
11. Duy Cu Nguyen, Anna Perini, and Paolo Tonella. A Goal-Oriented Software Testing Methodology. *Workshop on Agent Oriented Software Engineering (AOSE)*, at the *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)* , May 2007.
12. Cu D. Nguyen, Anna Perini and Paolo Tonella. Automated Continuous Testing of Multi-Agent Systems. *Fifth European Workshop on Multi-Agent Systems (EUMAS)*, December 2007.

Year 2006
1. David Binkley, Mariano Ceccato, Mark Harman, Filippo Ricca, Paolo Tonella. Tool-Supported Refactoring of Existing Object-Oriented Code into Aspects. In *IEEE Transactions on Software Engineering,* vol. 32, n. 9, pp. 698-717. September 2006.
2. M. Ceccato, M. Marin, K. Mens, L. Moonen, P. Tonella and T. Tourwe'. Applying and Combining three different Aspect Mining Techniques. *Software Quality Journal.* Vol. 14, n.3, pp. 209-231. September 2006.
3. Paolo Tonella, Filippo Ricca, Emanuele Pianta and Christian Girardi. Automatic Support for the Alignment of Multilingual Web Sites. *Journal of Software Maintenance and Evolution.* Vol. 18, n. 3, pp. 153-179. May-June 2006.
4. Filippo Ricca, Paolo Tonella. Detecting Anomaly and Failure in Web Applications. *IEEE MultiMedia.* Vol. 13, n. 2, pp. 44-51. April-June 2006.
5. Paolo Tonella, Paolo Avesani, Angelo Susi. Using the Case-Based Ranking Methodology for Test Case Prioritization. In *Proc. of the International Conference on Software Maintenance (ICSM),* pp. 123-133. September 2006.
6. Phil McMinn, Mark Harman, David Binkley, Paolo Tonella. The species per path approach to SearchBased test data generation. In *Proc. of the International Symposium on Software Testing and Analysis (ISSTA), pp. 13-24.* July 2006.
7. Filippo Ricca, Massimiliano Di Penta, Marco Torchiano, Paolo Tonella, Mariano Ceccato. An Empirical Study on the Usefulness of Conallen's Stereotypes in Web Appllication Comprehension. In *Proc. of the International Symposium on Web Site Evolution (WSE)*, pp. 58-68. September 2006.
8. Paolo Tonella, Filippo Ricca, Massimiliano Di Penta, Marco Torchiano. Towards Empirical Validation of Design Notations for Web Applications: An Experimental Framework. In *Proc. of Web Maintenance and Reengineering (WMR)*, pp. 41-46. March, 2006.

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