

8 References

- [Aghdaie and Tamir, 2003] AGHDAIE, N.; TAMIR, Y.; **Fast Transparent Failover for Reliable Web Service**; Proceedings of the International Conference on Parallel and Distributed Computing and Systems, Marina del Rey, California, November 2003.
- [Andras and Charlton 2005] ANDREAS, P.; CHARLTON, B.; **Self-Awareness Software - Will It Become a Reality?**; Self-star Properties in Complex Information Systems; LNCS Springer, 2005; pags 229-259.
- [Agerholm and Larsen, 1998] AGERHOLM, S.; LARSEN P. G.; **A Lightweight Approach to Formal Methods**; In Proceedings of the International Workshop on Current Trends in Applied Formal Methods, 1998; pages: 168 - 183; ISBN: 3-540-66462-9
- [Avizienis, 1995] AVIZIENIS, A.; The Methodology of N-Version Programming, **Chapter 2 of Software Fault Tolerance**, M. R. Lyu (ed.), Wiley, 23-46, 1995
- [Avizienis et al, 2004] AVIZIENIS, A.; LAPRIE, J-C.; RANDELL, B.; LANDWEHR, C.; **Basic Concepts and Taxonomy of Dependable and Secure Computing**; IEEE Transactions on Dependable and Secure Computing 1(1); Los Alamitos, CA: IEEE Computer Society; 2004; pags 11-33
- [Basilis and Boehm, 2001] BASILI, V.R.; BOEHM, B.W.; **Software Defect Reduction Top 10 List**; IEEE Computer 34(1); Los Alamitos, CA: IEEE Computer Society; 2001; pags 135-137
- [Bentley, 2005] BENTLEY, P.; **Investigations into Graceful Degradation of Evolutionary Developmental Software**; Natural Computing 4(4); Berlin: Springer; 2005; pags 417-437

[Brown et al, 2002] BROWN, A.; PATTERSON, D.; BROADWELL, P.; CANDEA, G.; CHEN, M.; CUTLER, J.; ENRIQUEZ, P.; FOX, A.; KYCYMAN, E.; MERZBACHER, M.; OPPENHEIMER, D.; SASTRY, N.; TETZLAFF, W.; TRAUPMAN, J.; TREUHAFT, N.; **Recovery-Oriented Computing (ROC): Motivation, Definition, Techniques, and Case Studies**; Technical Report UCB/CSD-02-1175, Computer Science, University of California Berkeley; 2002; Buscado em: 7/8/2004; URL: http://roc.cs.berkeley.edu/papers/ROC_TR02-1175.pdf

[Brown et al, 2005] BROWN, A.B.; PATTERSON, D.A.; **To Err is Human**; First Workshop on Evaluating and Architecting System Dependability, Goteborg, Sweden, 2001, Proceedings; Accessed: 25/September/2007; URL: <http://roc.cs.berkeley.edu/papers/easy01.pdf>

[Candea and Fox, 2003] CANDEA, G.; FOX, A.; **Crash-Only Software**; Proceedings of the IX Hot Topics in Operating Systems, Hawaii, EUA, 2003.

[Candea et al, 2003] CANDEA, G.; CUTLER, J.; FOX A.; **Improving availability with recursive micro-reboots: A soft-state system case study**. Performance Evaluation Journal, Summer 2003.

[Castro et al 2003] CASTRO, M.; RODRIGUES, R.; LISKOV, B.; **BASE: Using abstraction to improve fault tolerance**; ACM Trans. Comput. Syst. 21(3): 236-269 (2003)

[Chen at al 2004] CHEN, M.; ACCARDI, A.; KCMAN, E.; LLOYD, J.; PATTERSON, D.; FOX, A.; AND BREWER, E.; **Path-based Failure and Evolution Management**, In Proceedings of the First Symposium on Networked Systems Design and Implementation (NSDI), San Francisco, CA, 2004

[Cockburn and Williams, 2001] COCKBURN, A.; WILLIAMS, L.; **The costs and benefits of pair programming**; in: Succi, G.; Marchesi, M.; eds.; Extreme Programming Examined; Reading, Massachusetts: Addison-Wesley; 2001; pags 223-243

[CVS, 2007] CVS Project home page. Available at:
<http://www.nongnu.org/cvs/>. Visited in: 03 sep. 2009

- [DACS, 2009] **The Data and Analysis Center for Software.** Available at: https://www.thedacs.com/databases/roi/display_all_facts.php?datasource=ROI&label=PSP%20/%20TSP&improvement2=CMM%20Software%20Process%20Improvement. Visited in: 03 sep. 2009
- [EasyMock, 2007] **Easymock home page.** Available at: <http://www.easymock.org/>. Visited in: 03 sep. 2009
- [Eclipse, 2007] **Eclipse web page.** Available at: <http://www.eclipse.org>. Visited in: 03 sep. 2009
- [Eckhardt et al, 1990] ECKHARDT, D. E.; CAGLAYAN, A. K.; KNIGHT, J. C.; LEE, L. D.; MCALLISTER, D. F.; VOUK, M. A.; KELLY, J. P. J.; **An experimental evaluation of software redundancy as a strategy for improving reliability;** IEEE Transactions on Software Engineering; july, 1990; pages 692-702; ISSN: 0098-5589.
- [Fitzgerald and Larsen, 1995] FITZGERALD, J. S.; LARSEN, P. G.; **Formal Specification Techniques in the Commercial Development Process;** Position Papers from the Workshop on Formal Methods Application in Software Engineering Practice, International Conference on Software Engineering (ICSE-17), Seattle, 1995
- [Fowler, 2007] **Mocks aren't stubs.** Available at: Martin Fowler's Blog. Web: <http://www.martinfowler.com/articles/mocksArentStubs.html>. Visited in: 03 sep. 2009
- [Fox, 2002] FOX, A.; **Toward Recovery-Oriented Computing;** Invited talk; Anais/Proceedings of the VLDB 2002; 2002;
- [Fox and Patterson, 2002] FOX A. AND PATTERSON, D; **When Does Fast Recovery Trump High Reliability?**, Proceedings of the EASY 2002. San Jose, CA, October 2002. www.cs.ust.hk/vldb2002/VLDB2002-proceedings/papers/S25P01.pdf
- [Gamma et al, 1995] GAMMA, E.; HELM, R.; JOHNSON, R.; VLISSIDES, J.; **Design Patterns: Elements of Reusable Object-Oriented Software.** Addison-Wesley. ISBN 0-201-63361-2, 1995.

[Gerhart et al, 1994] GERHART, S.; CRAIGEN, D.; RALSTON, T. **Experience with Formal Methods in Critical Systems**; IEEE Software; january, 1994; pages 21-28; ISSN:0740-7459.

[Glass, 2008] GLASS, R.; **Two Mistakes and Error-Free Software: A Confession**; IEEE Software; july/august 2008

[Gotlieb and Botella, 2003] GOTLIEB, A.; BOTELLA, B.; **Automated metamorphic testing**; Proceedings of the COMPSAC 2003 - 27th Annual International Computer Software and Applications Conference, Dallas, Texas; Los Alamitos, CA: IEEE Computer Society; 2003; pages 34-40

[Hall, 1990] HALL, A.; **Seven Myths of Formal Methods**; IEEE Software 7(5); Los Alamitos, CA: IEEE Computer Society; 1990; pages 11-19

[Hibernate, 2008] **Hibernate home page**. Available at:
<http://www.hibernate.org>. Visited in: 03 sep. 2009

[Holloway, 1997] HOLLOWAY, C. M.; **Why Engineers Should Consider Formal Methods**; In 1997 AIAA/IEEE 16th Digital Avionics Systems Conference

[Hunt and Thomas, 1999] HUNT, A.; THOMAS, D.; **The Pragmatic Programmer**; Published by Addison-Wesley, Oct 1999; ISBN: 020161622X

[Hunt and Thomas, 2003] HUNT, A.; THOMAS, D.; **Mock Objects**; in Hunt, A.; Thomas, D.; eds.; Pragmatic Unit Test: in Java with JUnit; Sebastopol, CA: O'Reilly; 2003; pages 65-78

[Jira, 2007] **Jira home page**. Available at:
<http://www.atlassian.com/software/jira>. Visited in: 03 sep. 2009

[JMock, 2007] **Jmock home page**. Available at: <http://www.jmock.org>. Visited in: 03 sep. 2009

[Kcman and Fox, 2004] KCMAN, E.; FOX, A.; **Detecting application-level failures in component-based internet services**, Technical report, Stanford, 2004.

[Knight and Leverson, 1986] KNIGHT, J. C. AND LEVESON, N. O., **An Experimental Evaluation of the Assumption of Independence in Multi-Version Programming**, IEEE Trans. Software Eng., 12(1), pp. 96-109 (January 1986).

- [Kemerer and Slaughter, 1997] KEMERER, C.F.; SLAUGHTER, S.A.; **Determinants of Software Maintenance Profiles: An Empirical Investigation**; Software Maintenance Research and Practice 9; New York: John Wiley & Sons; 1997; pags 235-251.
- [Kemmerer, 1990] KEMMERER, R.A.; **Integrating Formal Methods into the Development Process**; IEEE Software 7(5); Los Alamitos, CA: IEEE Computer Society; 1990; pags 37-50
- [Liburd, 2004] LIBURD, S.; **An N-version electronic voting system**. Thesis (M. Eng.). Massachusetts Institute of Technology, Dept. of Electrical Engineering and Computer Science, 2004.
- [Lyu and He, 1993] LYU M. R.; HE, Y.; **Improving the N-Version Programming Process Through the Evolution of a Design Paradigm**, Proc. IEEE Trans. Reliability, Vol. 42, No. 2, June 1993
- [Mackinnon et al, 2001] MACKINNON, T.; FREEMAN, S.; CRAIG, P.; **Endo-Testing: Unit Testing with Mock Objects**; in: Succi, G.; Marchesi, M.; eds.; Extreme Programming Examined; Reading, Massachusetts: Addison-Wesley; 2001; pags 287-302
- [Mercurial, 2007] **Mercurial web site**. Visited in: 03 sep. 2009. Available at: <http://www.selenic.com/mercurial>. Visited in: 03 sep. 2009
- [Meyer, 1992] MEYER, B.; **Applying Design by Contract**; IEEE Computer 25(10); Los Alamitos, CA: IEEE Computer Society; 1992; pags 40-51
- [Mock Macker, 2007] **Mock maker home page**. Available at: <http://mockmaker.sourceforge.net>. Visited in: 03 sep. 2009
- [Morell, 1990] MORELL, L.J.; **A Theory of Defect-Based Testing**; IEEE Transactions on Software Engineering 16(8); Los Alamitos, CA: IEEE Computer Society; 1990; pags 844-857
- [MyHours, 2007] **My Hours web site**. Visited in: 03 sep. 2009. Available at: <http://www.myhours.com>. Visited in: 03 sep. 2009
- [Nagy et al, 2006] NAGY, L.; FORD, R.; ALLEN, W.; **N-Version Programming for the Detection of Zero-day Exploits**. The 2006 IEEE Topical Conference on Cybersecurity, Daytona Beach, Florida, April 2006.

[Payne et all, 1997] PAYNE, J.; ALEXANDER, R.; HUTCHINSON, C.; **Design-for-Testability for Object-Oriented Software**; Object Magazine, 7(5): 34-43, May 1997

[Ponnekanti et al, 2002] PONNEKANTI S.; JOHANSON, B.; KICIMAN, E.; FOX, A.; **Designing for Maintainability, Failure Resilience, and Evolvability in Ubiquitous Computing Software**, Operating Systems Design and Implementation, 2002

[Pullum, 2001] PULLUM, L.L.; **Software Fault Tolerance Techniques and Implementation**; Norwood, MA: Artech House; 2001

[Saha, 2007] SAHA, G. K.; **Software - Implemented Self - Healing System**; Journal of the Latin Americal Centre for Informatics Studies, Vol. 10, No. 2, December 2007, CLEI Press, Chili.

[Satpathy et al, 2004] SATPATHY, M.; SIEBEL, N.T.; RODRIGUEZ, D.; **Assertions in Object Oriented Software Maintenance: Analysis and Case Study**; Proceedings of the 20th IEEE International Conference on Software Maintenance (ICSM'04); Los Alamitos, CA: IEEE Computer Society; 2004

[Scott et al, 1987] SCOTT, R. K.; GAULT, J. W.; MCALLISTER, D. F.; **Fault-Tolerant Software Reliability Modeling**, IEEE Transactions on Software Engineering, vol. 13, no. 5, pp. 582-592, May 1987, doi:10.1109/TSE.1987.233463

[Sobel, 2002] SOBEL, A.E.K.; CLARKSON, M.R.; **Formal Methods Application: An Empirical Tale of Software Development**; IEEE Transactions on Software Engineering 28(3); Los Alamitos, CA: IEEE Computer Society; 2002; pags 308-320

[Staa, 2000] STAA, A.V.; **Programação Modular**; Rio de Janeiro, RJ: Campus; 2000 (in Portuguese)

[Subversion, 2007] Subversion Project home page. Available at: <http://subversion.tigris.org>. Visited in: 03 sep. 2009

[Sun, 1999] **Code Conventions for the Java Programming Language** home page. Available at:

[http://java.sun.com/docs/codeconv/html/CodeConvTOC.doc.html.](http://java.sun.com/docs/codeconv/html/CodeConvTOC.doc.html)

Visited in: 03 sep. 2009

[Taylor, 1986] TAYLOR, D.J.; SEGER, C.J.H.; **Robust storage structures for crash recovery**; IEEE Transactions on Computers 35(4); 1986; pags. 288-295

[Trolltech, 2009] **QT web page**. Available at: <http://www.trolltech.com>. Visited in: 03 sep. 2009

[TTL, 2008] **74HC423 Data Sheet**. Available at:
[http://www.nxp.com/acrobat_download/
datasheets/74HC_HCT423_3.pdf](http://www.nxp.com/acrobat_download/datasheets/74HC_HCT423_3.pdf)

[Valgrind, 2007] **Valgrind web page**. Available at: <http://valgrind.org>. Visited in: 03 sep. 2009

[Wikipedia, 2008] **Fault Tolerance**. Available at:
http://en.wikipedia.org/wiki/Defect-tolerant_system. Visited in: 03 sep. 2009

[Zisman, 2009] **Small is Beautiful**. Available at:
<http://www.zisman.ca/Articles/1998/Small.html>. Visited in: 03 sep. 2009