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List of Publications¹

1 Books

- [1] **J. Schumann** and Yan Liu, editors Applications of Neural Networks in High Assurance Systems. Studies in Computational Intelligence, Springer Verlag, 2010.
- [2] **J. Schumann** Automated Theorem Proving in Software Engineering. ISBN 3-540-67989-8. Springer Verlag, 2001. `file:/Users/jschuman/papers/CV/PDF/BOOK2001/book.html`

2 Peer-Reviewed Articles in Books, Journals, and Workshop and Conference Proceedings

- [100] **J. Schumann** and S.-A. Schneider Automated Testcase Generation for Numerical Support Functions in Embedded Systems In: Proc. NASA Formal Methods Conference, Springer, 2014 (accepted, to appear). `file:/Users/jschuman/papers/CV/PDF/SS2014.pdf` `file:/Users/jschuman/papers/CV/PDF/SS2014-suppl.pdf`
- [99] T. Reinbacher and K. Y. Rozier and **J. Schumann** Hardware Enabled Unobtrusive Health Monitoring of Real-Time Systems. In: Proc. TACAS '14, pp 346–361, Springer, 2014 (accepted, to appear). `file:/Users/jschuman/papers/CV/PDF/RRS2014.pdf`
- [98] **J. Schumann**, K. Y. Rozier, T. Reinbacher, O. J. Mengshoel, T. Mbaya, and C. Ippolito Towards Real-time, On-board, Hardware-supported Sensor and Software Health Management for Unmanned Aerial Systems. In Proceedings of Prognostics and Health Management (PHM-13), 2013. `file:/Users/jschuman/papers/CV/PDF/SRRMMI2013.pdf`

¹ Selected publications available on <http://ti.arc.nasa.gov/profile/schumann>.

- [97] A. Srivastava and **J. Schumann** Software Health Management: A Necessity for Safety Critical Systems. *Journal "Innovations in Systems and Software Engineering"*, Springer, 9(4):219–233, 2013. `file:/Users/jschuman/papers/CV/PDF/SS2013.pdf`
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- [93] **J. Schumann**, T. Mbaya, and O. Mengshoel Bayesian Software Health Management for Aircraft Guidance, Navigation, and Control Proc. of Conference on Prognostics and Health Management (PHM), 2011. `file:/Users/jschuman/papers/CV/PDF/SM02011.pdf`
- [92] A. Srivastava and **J. Schumann** The Case for Software Health Management Proc. of SMC-IT, IEEE, 2011. `file:/Users/jschuman/papers/CV/PDF/SS2011_SMC.pdf`
- [91] Y. Liu, **J. Schumann**, and B. Cukic. Statistical Evaluation Methods for V&V of Neuro-Adaptive Systems In W. Eric Wong, B. Cukic, eds., *An Adaptive Control Approach for Software Quality Improvement*, World Scientific Press, 2011. `file:/Users/jschuman/papers/CV/PDF/LSC2008.pdf`
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- [85] **J. Schumann**, A. Srivastava and O. Mengshoel Who guards the Guardians? — Toward V&V of Health Management Software (Short Paper) In Proc. Runtime Verification (RV) 2010, LNCS Vol 6418, 399–404, Springer, 2010. `file:/Users/jschuman/papers/CV/PDF/SSM2010.pdf`
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3 Habilitation Thesis

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4 Dissertation

- [1] **J. Schumann** Efficient Theorem Provers based on an Abstract Machine Dissertation. Technische Universität München, 1991. `file:/Users/jschuman/papers/CV/PDF/S1991dissertation.pdf`

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