Curriculum Vitae

Personal information

Name:	Enno Ruijters
Address:	Reutumbrink 32-2 7544 XM Enschede the Netherlands
Telephone number:	+31 636226510
E-mail address:	mail@ennoruijters.nl
Website:	https://www.ennoruijters.nl/
Date of birth:	2 February 1990
Nationality:	Dutch

Employment

2019–Current:	Software engineer at BetterBe B.V.
2018–2019:	Postdoctoral Researcher at the University of Twente (StepUp project)
2014–2018:	PhD Student at the University of Twente, ArRangeer project (smARt Railroad maintenance eNGinEEring with stochastic model checking). PhD Thesis: Zen and the Art of Railway Maintenance — Analysis and Optimization of Maintenance via Fault Trees and Statistical Model Checking.
2012:	Internship at IDEE (part of the Maastricht University Medical Centre) Project: Design and implementation of a computer model for climate control of a Respiration Chamber.

Education (during PhD study)

Mar–Jun 2017:	Research visit at Fondazione Bruno Kessler, Embedded Systems Group, *Trento, Italy*.
Aug 2017:	Co-organiser of the Risk Management track of the CuriousU summer school, *Enschede, The Netherlands.*
Oct 2016:	International School on Tool-based Rigorous Engineering of Software Systems (STRESS 2016), *Corfu, Greece.*
Aug 2015:	Marktoberdorf summer school on Verification and Synthesis of Correct and Secure Systems, *Marktoberdorf, Germany*.
Jul 2014:	EATCS Young Researchers school on Automata, Logic and Games. *Telč, Czech Republic*.

Education

2011–2013:	Maastricht University: Master Operations Research (Graduated Summa cum laude[1])
	Master thesis: Model-Checking Markov Chains using Interval Arithmetic
2008–2011:	Maastricht University: Bachelor Knowledge Engineering (Graduated cum laude[2])

Awards

2009:	Winner of the Top 3% grant for the top 3% of students at Maastricht University.

Research interests

My primary research interests are in the areas of fault tree analysis, studying methods and modeling techniques to analyse the dependability of primarily physical systems, by analyzing the failure behaviour of individual components of the system as well as the interactions between components that can lead to system-level failures. In particular, I am interested in applying model checking techniques to validate the correctness of such systems and to obtain quantitative results on their dependability.

Selected Publications

For a full list, see https://www.ennoruijters.nl/research.html.

1. Enno Ruijters: Zen and the Art of Railway Maintenance: Analysis and Optimization of Maintenance via Fault Trees and Statistical Model Checking (May 2018). PhD thesis, University of Twente.

2. Carlos E. Budde, Enno Ruijters, and Mariëlle Stoelinga: The Dynamic Fault Tree Rare Event Simulator (August 2020). *In: Proceedings of the 17th International Conference on Quantitative Evaluation of SysTems (QEST 2020)*. Won 'Best Short Paper' award.

3. Enno Ruijters, Daniël Reijsbergen, Pieter-Tjerk de Boer, and Mariëlle Stoelinga: Rare Event Simulation for Dynamic Fault Trees (June 2019). *In: Reliability Engineering and System Safety 186, pp. 220–231.*

4. Rajesh Kumar, Stefano Schivo, Enno Ruijters, Buğra M. Yildiz, David Huistra, Jacco Brandt, Arend Rensink, and Mariëlle Stoelinga: Effective Analysis of Attack Trees: a Model-Driven Approach (April 2018). *In: Proceedings of the 21st International Conference on Fundamental Approaches to Software Engineering (FASE)*.

5. Stefano Schivo, Buğra M. Yildiz, Enno Ruijters, Christopher Gerking, Rajesh Kumar, Stefan Dziwok, Arend Rensink, and Mariëlle Stoelinga: How to Efficiently Build a Front-End Tool for UPPAAL: A Model-Driven Approach (October 2017). *In: Proceedings of the Symposium on Dependable Software Engineering: Theories, Tools and Applications (SETTA)*.

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1   Summa cum laude: All grades at least 8/10, average grade at least 9/10.
2   Cum laude: All grades at least 7/10, average grade at least 8/10.

6. Enno Ruijters, Daniël Reijsbergen, Pieter-Tjerk de Boer, and Mariëlle Stoelinga: Rare Event Simulation for Dynamic Fault Trees (September 2017). *In: Proceedings of the International Conference on Computer Safety, Reliability, and Security (SAFECOMP)*.

7. Enno Ruijters, Stefano Schivo, Mariëlle Stoelinga, and Arend Rensink: Uniform Analysis of Fault Trees Through Model Transformations (January 2017). *In: Proceedings of the 63rd annual IEEE Reliability and Maintainability Symposium (RAMS)*.

8. Enno Ruijters and Mariëlle Stoelinga: Better railway engineering through statistical model checking (October 2016). *In: Proceedings of the 7th International Symposium on Leveraging Applications of Formal Methods, Verification and Validation (IsoLA)*.

9. Enno Ruijters, Dennis Guck, Peter Drolenga, Margot Peters, and Mariëlle Stoelinga: Maintenance analysis and optimization via statistical model checking: Evaluating a train pneumatic compressor (August 2016). *In: Proceedings of the 13th International Conference on Quantitative Evaluation of SysTems (QEST)*.

10. Enno Ruijters, Dennis Guck, Martijn van Noort, and Mariëlle Stoelinga: Reliability-centered maintenance of the Electrically Insulated Railway Joint via Fault Tree Analysis: A practical experience report (July 2016). *In: Proceedings of the 46th annual International Conference on Dependable Systems and Networks (DSN)*.

11. Enno Ruijters, Dennis Guck, Peter Drolenga, and Mariëlle Stoelinga: Fault maintenance trees: reliability centered maintenance via statistical model checking (January 2016). *In: Proceedings of the 62nd annual IEEE Reliability and Maintainability Symposium (RAMS)*.

12. Rajesh Kumar, Enno Ruijters, and Mariëlle Stoelinga: Quantitative Attack Tree Analysis via Priced Timed Automata (September 2015). *In: Proceedings of the 13th International Conference on Formal Modeling and Analysis of Timed Systems (FORMATS)*.

13. Enno Ruijters and Mariëlle Stoelinga: Fault tree analysis: A survey of the state-of-the-art in modeling, analysis and tools (May 2015). *In: Computer Science Review vol. 15–16*.

14. Dennis Guck, Mark Timmer, Hassan Hatefi, Enno Ruijters, and Mariëlle Stoelinga: Modelling and analysis of Markov reward automata (November 2014). *In: Proceedings of the 12th International Symposium on Automated Technology for Verification and Analysis (ATVA)*.