

PhD Student in Computer Science

Personal information

First and Second Name Andreas Classen
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Nationality Belgian
Date of birth 25th March 1984
Gender Male

Education

currently PhD student (FNRS research fellow).
Faculty of Computer Science, University of Namur (FUNDP)
Stay in the UK Four-month stay in Milton Keynes, United Kingdom. Visiting the Centre
for Research in Computing at the Department of Computing, The Open
University, under the supervision of Prof. Bashar Nuseibeh.
2004 - 2007 1st, 2nd and 3rd master in computer science (**summa cum laude**)
Faculty of Computer Science, University of Namur (FUNDP)
2002 - 2004 1st and 2nd candidature in computer science (**magna cum laude**)
Faculty of Computer Science, University of Namur (FUNDP)
1996 - 2002 High school, *Abitur* (A Level) diploma in maths, Latin and physics
Bisshöfliche Schule St. Vith
PhD Thesis Problem-Oriented Modelling and Verification of Software Product Lines
Scholarship awarded by the Belgian National Fund for Scientific Research
(FRS-FNRS).
Duration 2007 - 2011
Supervisors Prof. P. Heymans and Prof. P.-Y. Schobbens

Publications Peer-Reviewed

Journal Articles

- [1] Patrick HEYMANS, Pierre-Yves SCHOBENS, Jean-Christophe TRIGAUX, Yves BONTEMPS, Raimundas MATULEVICIUS, Andreas CLASSEN, [Evaluating Formal Properties of Feature Diagram Languages](#), in IET Software Journal, volume 2, issue 3, pp. 281-302, 2008

Conference Papers

- [2] Andreas CLASSEN, Patrick HEYMANS, Pierre-Yves SCHOBENS, Axel LEGAY, Jean-François RASKIN, [Model Checking Lots of Systems: Efficient Verification of Temporal Properties in Software Product Lines \(to appear\)](#), in 32nd International Conference on Software Engineering, ICSE 2010, May 2-8, 2010, Cape Town, South Afrika, Proceedings, IEEE, 2010
[3] Andreas CLASSEN, Patrick HEYMANS, Thein Than TUN, Bashar NUSEIBEH, [Towards Safer Composition](#), in Proceedings of the 31st International Conference on Software Engineering (ICSE), New Ideas and Emerging

Results Track, pp. 270-230, IEEE, 2009

- [4] Thein Than TUN, Quentin BOUCHER, Andreas CLASSEN, Arnaud HUBAUX, Patrick HEYMANS, *Relating Requirements and Feature Configurations: A Systematic Approach*, in Proceedings of the 13th International Software Product Lines Conference (SPLC'09), San Francisco, CA, USA, Carnegie Mellon University, 2009
- [5] Arnaud HUBAUX, Andreas CLASSEN, Patrick HEYMANS, *Formal Modelling of Feature Configuration Workflows*, in Proceedings of the 13th International Software Product Lines Conference (SPLC'09), San Francisco, CA, USA, Carnegie Mellon University, 2009
- [6] Peter EBRAERT, Andreas CLASSEN, Patrick HEYMANS, Theo D'HONDT, *Feature Diagrams for Change-Oriented Programming*, in Proceedings of the 10th International Conference on Feature Interactions (ICFI'09), Lisbon, Portugal, pp. 107-122, IOS Press, 2009
- [7] Andreas CLASSEN, Patrick HEYMANS, Pierre-Yves SCHOBENS, *What's in a Feature? A Requirements Engineering Perspective*, in Proceedings of the 11th International Conference on Fundamental Approaches to Software Engineering (FASE'08), Springer LNCS, volume 4961, pp. 16-30, 2008
- [8] Isabelle LINDEN, Hubert TOUSSAINT, Andreas CLASSEN, Pierre-Yves SCHOBENS, *Automatic Student Coaching and Monitoring Thanks to AUTOMATON: The Case of Writing a Compiler*, in ECEL 2008: Proceedings of the 7th European Conference on e-Learning, Cyprus 6-7 November 2008

Workshop Papers, Posters (peer-reviewed)

- [9] Quentin BOUCHER, Andreas CLASSEN, Paul FABER, Patrick HEYMANS, *Introducing TVL, a Comprehensive Text-based Feature Modelling Language (to appear)*, in Proceedings of the Fourth International Workshop on Variability Modelling of Software-intensive Systems (VaMoS'10), Linz, Austria, January 27-29, 2010
- [10] Arnaud HUBAUX, Andreas CLASSEN, Marcilio MENDONCA, Patrick HEYMANS, *A Preliminary Review on the Application of Feature Diagrams in Practice (to appear)*, in Proceedings of the Fourth Workshop on Variability Modelling of Software-intensive Systems (VaMoS'10), Linz, Austria, January 27-29, 2010
- [11] Christophe GAUTHIER, Andreas CLASSEN, Quentin BOUCHER, Patrick HEYMANS, Margaret-Anne STOREY, Marcilio MENDONCA, *XToF: A Tool for Tag-based Product Line Implementation (to appear)*, in Proceedings of the Fourth International Workshop on Variability Modelling of Software-intensive Systems (VaMoS'10), Linz, Austria, January 27-29, 2010
- [12] Andreas CLASSEN, Arnaud HUBAUX, Patrick HEYMANS, *Analysis of Feature Configuration Workflows (poster)*, in Proceedings of the 17th IEEE International Requirements Engineering Conference (RE'09), Atlanta, Georgia, USA
- [13] Arnaud BOURDOUX, Laurent DEMONCEAU, Paul PARISIS, Andreas CLASSEN, Quentin BOUCHER, *Feature Management Applied to On-Board Software Building Blocks*, in Proceedings of DASIA 2009, Data Systems In Aerospace, May 2009, Istanbul, Turkey, ESA.
- [14] Andreas CLASSEN, Arnaud HUBAUX, Patrick HEYMANS, *A Formal Semantics for Multi-level Staged Configuration*, in Proceedings of the Third Workshop on Variability Modelling of Software-intensive Systems (VaMoS'09), Sevilla, Spain. Univ. of Duisburg-Essen, pp. 51-60, 2009
- [15] Andreas CLASSEN, Arnaud HUBAUX, Frans SANEN, Eddy TRUYEN, Jorge VALLEJOS, Pascal COSTANZA, Wolfgang DE MEUTER, Patrick HEYMANS, Wouter JOOSEN, *Modelling Variability in Self-Adaptive systems: Towards a Research Agenda*, in Workshop on Modularization, Composition and

- Generative Techniques for Product Line Engineering (McGPLE), 2008
- [16] Andreas CLASSEN, Robin LANEY, Thein Tan TUN, Patrick HEYMANS, Arnaud HUBAUX, *Using the Event Calculus to Reason about Problem Diagrams*, in Proceedings of the Third International Workshop on Applications and Advances in Problem Frames (IWAAPF'08), co-located with ICSE'08, ACM Digital Library, pp. 74-77, 2008
 - [17] Andreas CLASSEN, *Problem-Oriented Feature Interaction Detection in Software Product Lines (short paper presented at the Doctoral Symposium)*, in Proceedings of the 9th International Conference on Feature Interactions in Software and Communication Systems (ICFI'07), Grenoble, IOS Press, pp. 217-220, 2007
 - [18] Andreas CLASSEN, Patrick HEYMANS, Robin LANEY, Bashar NUSEIBEH, Thein Tan TUN, *On the Structure of Problem Variability: From Feature Diagrams to Problem Frames*, in First International Workshop on Variability Modelling of Software-Intensive Systems (VaMoS), Lero Technical Report, pp. 109-117, 2007
 - [19] Patrick HEYMANS, Pierre-Yves SCHOBENS, Jean-Christophe TRIGAUX, Raimundas MATULEVICIUS, Andreas CLASSEN, Yves BONTEMPS, *Towards the Comparative Evaluation of Feature Diagram Languages*, in Software and Services Variability Management Workshop - Concepts, Models and Tools, collection Research Report 3, pp. 1-16, 2007
 - [20] Jean-Christophe TRIGAUX, Patrick HEYMANS, Pierre-Yves SCHOBENS, Andreas CLASSEN, *Comparative Semantics of Feature Diagrams: FFD vs vDFD*, in Proceedings of the Workshop on Comparative Evaluation in Requirements Engineering (CERE'06) held in conjunction with the 14th IEEE International Requirements Engineering Conference (RE'06), 2006

Publications Other

MSc Thesis

- [21] Andreas CLASSEN, *Problem-oriented modelling and verification of software product lines*, University of Namur, 2007

Technical Reports

- [22] Andreas CLASSEN, *Modelling with FTS: a Collection of Illustrative Examples*, University of Namur, 2010
- [23] Andreas CLASSEN, Quentin BOUCHER, Paul FABER, Patrick HEYMANS, *Syntax and Semantics of TVL, a Comprehensive Text-based Feature Modelling Language*, University of Namur, 2010
- [24] Quentin BOUCHER, Andreas CLASSEN, Patrick HEYMANS, Arnaud BOURDOUX, Laurent DEMONCEAU, *Tag and Prune: A Pragmatic Approach to Software Product Line Implementation*, University of Namur, 2009
- [25] Andreas CLASSEN, Arnaud HUBAUX, Patrick HEYMANS, *A Formal Semantics for Multi-level Staged Configuration*: Extended version of a paper submitted to the Third International Workshop on Variability Modelling of Software-intensive Systems (VaMoS'09), Sevilla, Spain, January 2009
- [26] Arnaud HUBAUX, Andreas CLASSEN, *Taming Time in Software Product Lines*, University of Namur, 2008

Awards and Grants

- [1] *MoVES Promising Young Researcher Award 2009* (incl. grant of 500 €), awarded by the MoVES project, a federal research project in Belgium involving seven universities and more than 130 researchers.
- [2] *Travel grant* of ~800 € by the Belgian National Fund for Scientific Research (FRS-FNRS) to attend ICSE 2009 in Vancouver, Canada.

- [3] *Travel grant of 2870 € by the French Community of Belgium obtained as part of a competition, the “Concours Bourses de Voyage 2009”.*
- [4] *Scholarship for PhD studies from 2007 to 2011 awarded by the Belgian National Fund for Scientific Research (FRS-FNRS); one of three computer science scholarships awarded in 2007.*

Scientific Activities

Reviewer

- [1] VaMoS 2010: Fourth International Workshop on Variability Modelling of Software-intensive Systems (VaMoS'10). Invited by Prof. Patrick Heymans.
- [2] Sci. Comput. Program.: Science of Computer Programming, Journal, 2009. Elsevier. Invited by Prof. Christian Lengauer.
- [3] SPLC 2009: 13th International Software Product Line Conference, 24-28 August 2009, San Francisco, CA, USA. Published by Carnegie Mellon University. Invited by Prof. Patrick Heymans.
- [4] TSI: Journal Technique et Science Informatique, special issue Ingénierie dirigée par les modèles. Lavoisier - Service Editorial Hermès. Invited by Prof. Patrick Heymans.
- [5] CAISE 2009: 21st International Conference on Advanced Information Systems Engineering, 8-12 June 2009 Amsterdam, The Netherlands. Springer LNCS 5565. Invited by Prof. Patrick Heymans.
- [6] AUSE: Automated Software Engineering Journal, Volume 15, 2008. Springer. Invited by Prof. Bashar Nuseibeh.
- [7] ER 2008: 27th International Conference on Conceptual Modeling, Barcelona, Spain, October 20-24, 2008. Springer LNCS 5231. Invited by Prof. Patrick Heymans.
- [8] SPLC 2008: 12th International Conference on Software Product Lines, Limerick, Ireland, September 08-12, 2008. IEEE Computer Society. Invited by Prof. Patrick Heymans.
- [9] RE 2008: 16th IEEE International Conference on Requirements Engineering, Barcelona, Spain, September 08-12, 2008. IEEE Computer Society. Invited by Prof. Patrick Heymans.
- [10] CAISE 2008: 20th International Conference on Advanced Information Systems Engineering, Montpellier, France, June 18-20, 2008. Springer LNCS 5074. Invited by Prof. Patrick Heymans.
- [11] CAL 2008: 2ème Conférence Francophone sur les Architectures Logicielles, 3-7 Mars 2008, Montréal, Québec, Canada. Revue des Nouvelles Technologies de l'Information RTNI-L-2. Invited by Prof. Pierre-Yves Schobbens.
- [12] GTTSE 2007: Generative and Transformational Techniques in Software Engineering II, International Summer School, Braga, Portugal, July 2-7. 2007. Springer LNCS 5235. Invited by Prof. Jean-Luc Hainaut.

Organised Events

- [13] *Annual Meeting of the FNRS Contact Group on Fundamental Computer Science on the topic of Fundamental Aspects of Software Evolution (Workshop, Namur, Belgium, 2008). Organiser of the meeting that consisted in eight scientific presentations and an invited talk by Dr. Juan Fernandez-Ramil (The Open University).*

Speaker at conferences and workshops

- [14] *8th Belgian-Netherlands Software Evolution Workshop (BENEVOL'09) co-located with the Annual Meeting of the Belgian inter-university MoVES project (Workshop, University Louvain, Belgium, 2009). Speaker at the*

MoVES event.

- [15] *Annual Meeting of the FNRS Contact Group on Fundamental Computer Science on the topic of Fundamental Aspects of Software Evolution* (Workshop, University Louvain, Belgium, 2009). Presentation of work on efficient verification of software product lines.
- [16] *31st International Conference on Software Engineering (ICSE 2009)* (Conference, Vancouver, BC, Canada, 2009). Presenting the paper "Towards Safer Composition" at the NIER session and its associated poster at the poster session. Attending the main conference and a tutorial by Gail E. Harris (Instantiated Software Inc.).
- [17] *Third International Workshop on Variability Modelling of Software-intensive Systems (VaMoS'09)* (Workshop, Universidad de Sevilla, Sevilla, Spain, 2009). Co-author of the Paper "A Formal Semantics for Multi-Level Staged Configuration".
- [18] FUNDP StaffSeminar (Seminar, Namur, Belgium, 2009). Presentation "Towards Safer Composition".
- [19] *7th Belgian-Netherlands Software Evolution Workshop (BENEVOL'08)* (Workshop, TU Eindhoven, The Netherlands, 2008). Co-author of the paper "A Formal Semantics for Multi-level Staged Configuration", short version of a paper of the same title at VaMoS'09.
- [20] FUNDP StaffSeminar (Seminar, Namur, Belgium, 2008). Presentation "Automaton Reborn: Student Supervision 2.0".
- [21] SIRRIS lecture series on requirements engineering (technology transfer) (Lecture, 2008). Preparation, together with Arnaud Hubaux, of the lecture given by Prof. Patrick Heymans on software product line engineering and feature modelling.
- [22] *3rd International Workshop on Applications and Advances in Problem Frames (IWAAPF'08)* (Workshop, Leipzig, Germany, 2008). Presenting the paper "Using the Event Calculus to Reason about Problem Diagrams".
- [23] *Fundamental Approaches to Software Engineering (FASE'08)* (Conference, Budapest, Hungary, 2008). Presenting the paper "What's in a Feature: A Requirements Engineering Perspective".
- [24] *Second International Workshop on Variability Modelling of Software-intensive Systems (VaMoS'08)* (Workshop, University of Duisburg-Essen, Essen, Germany, 2008). Attending the workshop sessions and participating in the practical organisation of the workshop.
- [25] *First International "Secure by Design" Workshop* (Workshop, University of East London, London, UK, 2007). Presenting my MSc thesis work titled "Formalisation and Verification of Requirements-level Feature Interactions".
- [26] *Ninth International Conference on Feature Interactions in Software and Communication Systems (ICFI/FIW'07)* (Conference, Grenoble, France, 2007). Presenting the paper "Problem-Oriented Feature Interaction Detection in Software Product Lines" at the doctoral symposium.
- [27] *First International Workshop on Variability Modelling of Software-intensive Systems (VaMoS'07)* (Workshop, Limerick, Ireland, 2007). Presenting the paper "On the Structure of Problem Variability: From Feature Diagrams to Problem Frames".

Visited conferences, workshops, and tutorials

- [28] *Design Science Research Methodology: Principles and Practice* (Seminar, University of Namur, Namur, 2009). One-day lecture given by Prof. Roel Wieringa (University of Twente).
- [29] *Software Requirements and Design: A Tribute to Michael Jackson* (co-located with ICSE 2009) (Workshop, Vancouver, BC, Canada, 2009).

Attending the event which celebrates Michael Jackson's seminal contributions to software engineering, and recognizes his influence on several generations of researchers. The program featured talks by Tony Hoare, Daniel Jackson, John Cameron, Axel van Lamsweerde, Anthony Hall, Pamela Zave, Cliff Jones, Bashar Nuseibeh and Michael Jackson himself.

- [30] *International Workshop on Comparison and Versioning of Software Models (CVSM 2009)*, co-located with ICSE 2009 (Colloque, Vancouver, BC, Canada, 2009). Attending the workshop.
- [31] *Questions spéciales de l'informatique fondamentale: méthodes de développement B et CSP* (Seminar, University of Namur, Namur, 2009). Four-day lecture on the B-Method given by Michael Leuschel (University of Düsseldorf).
- [32] *30th International Conference on Software Engineering (ICSE 2008)* (Conference, Leipzig, Germany, 2008). Attending the main conference and tutorials by Dimitra Giannakopoulou and Corina Păsăreanu (NASA Ames Research Center, USA) and Stefanos Zachariadis (Zühlke)
- [33] *European Joint Conferences on Theory and Practice of Software (ETAPS'08)* (Conference, Budapest, Hungary, 2008). Attending all sessions of FASE, most sessions of TACAS and several sessions of FOSSACS, ESOP and CC.
- [34] *Evol@Mons - Research Seminar on Software Evolution* (Seminar, Mons, Université de Mons-Hainaut, 2008). Attending tutorials given by Stéphane Ducasse (INRIA Lille), Ralf Lämmel (University of Koblenz), Tudor Gîrba (University of Bern) and Andy Zaidman (TU Delft).
- [35] *Petri Nets and their Analyses* (Seminar, Université Libre de Bruxelles, Bruxelles, 2007). Attending a tutorial by Gilles Geeraerts (Université Libre de Bruxelles).
- [36] *6th Belgian-Netherlands Software Evolution Workshop (BENEVOL'07)* (Workshop, FUNDP Namur, Belgium, 2007).
- [37] *PReCISE Day* (Workshop, FUNDP Namur, Belgium, 2007). Participating in the poster session with the poster "Problem-Oriented Feature Interaction Detection: Model checking Software Product Lines".
- [38] *2nd Summer School on Generative and Transformational Techniques in Software Engineering (GTTSE'07)* (Summer School, Braga, Portugal, 2007). Attending tutorials by Krzysztof Czarnecki (University of Waterloo), Jean-Marie Favre (University of Grenoble), Stan Jarzabek (National University of Singapore), Oege de Moor (Oxford University), José Nuno Oliveira (University of Minho), Markus Poeschel (Carnegie Mellon University), Walid Taha (Rice University), Eelco Visser (Delft University of Technology) and various other technical presentations.

Graphic design and webmaster for conferences and workshops

- [39] Website, flyer and logo for MFI'09: *Cinquièmes Journées Francophones modèles formels de l'interaction, Lannion, France, 27-29 Mai, 2009*
- [40] Flyer and slide design for RefsQ'09: *14th International Working Conference on Requirements Engineering: Foundation for Software Quality, Amsterdam, The Netherlands, 8-9 June 2009*
- [41] Website and logo for MCCM'08: *International Workshop on Model Co-Evolution and Consistency Management hosted at MODELS 2008, Toulouse, France, September 28 - October 3, 2008*
- [42] Website for FNRS-FCS'08: *Annual meeting of the FRNS contact group on fundamental computer science, Namur, 22 May 2008*
- [43] Flyer and slide design for RefsQ'08: *15th International Working Conference on Requirements Engineering: Foundation for Software*

Quality, Montpellier, France, 16-17 June 2008

- [44] *Flyer and poster for PReCISE Day: 1st PReCISE day, The Future of Information Systems, Namur, December 12, 2007*