

CURRICULUM VITAE

EUROPEAN FORMAT

PERSONAL INFORMATION

Name, Surname Maurice Henri ter Beek
Address c/o Istituto di Scienza e Tecnologie dell'Informazione (ISTI)
Area della Ricerca CNR di Pisa
Via G. Moruzzi 1, 56124 Pisa (PI), Italy
Tel +390506213471
Fax +390503152040
E-mail maurice.terbeek@isti.cnr.it
Website <http://fmt.isti.cnr.it/~mtbeek/>
Nationality Dutch
Place and Date of birth 's-Gravenhage (The Netherlands), 7-10-1972

WORK EXPERIENCE

Dates (from – to)	2003 - present
Name and address of employer	ISTI-CNR, Pisa, Italy
Occupation or position held	Researcher
Main activities and responsibilities	I have been - and in different gradations still am - active in the research areas grammar systems, team automata, and formal methods - in particular applied to Software Product Line Engineering
Dates (from – to)	July 2015
Name and address of employer	LIACS (Leiden Institute of Advanced Computer Science), Leiden University, The Netherlands
Occupation or position held	Guest professor with a Short-Term-Mobility grant from CNR
Main activities and responsibilities	Research programme "Compatibility and receptiveness in team automata: the case of masters and slaves"
Dates (from – to)	2012 - 2013
Name and address of employer	LIACS (Leiden Institute of Advanced Computer Science), Leiden University, The Netherlands
Occupation or position held	Lecturer
Main activities and responsibilities	Software Engineering (2012), <i>Studievaardigheden</i> (2012), Requirements Engineering (2013)
Dates (from – to)	2003, 2007
Name and address of employer	Dipartimento di Informatica, Università di Pisa, Italy
Occupation or position held	Teaching assistant (nel 2007 con nomina di cultore della materia)
Main activities and responsibilities	Software Engineering (2007), Laboratorio di Introduzione alla Programmazione B (2003)
Dates (from – to)	2001
Name and address of employer	LIACS, Leiden University, The Netherlands
Occupation or position held	Lecturer
Main activities and responsibilities	Formal Languages and Automata, Introduction to Fundamental Computer Science, Theory of Concurrency
Dates (from – to)	1994 - 2000
Name and address of employer	LIACS, Leiden University, The Netherlands
Occupation or position held	Teaching assistant
Main activities and responsibilities	Formal Languages and Automata, Introduction to Fundamental Computer Science, Theory of Concurrency, Artificial Intelligence, Operating Systems, Logic for Computer Scientists, Theory of Databases

EDUCATION AND TRAINING

Dates (from – to)	23/1/2015 - 23/1/2021
Name and type of organisation	MIUR (tornata 2013 di cui al DD 161 del 28/1/2013)
Title of qualification awarded	Abilitazione Scientifica Nazionale alle Funzioni di Professore Universitario di Seconda Fascia, classe di concorso 09/H1 - "Sistemi di Elaborazione delle Informazioni"
Dates (from – to)	19/1/2015 - 19/1/2021
Name and type of organisation	MIUR (tornata 2013 di cui al DD 161 del 28/1/2013)
Title of qualification awarded	Abilitazione Scientifica Nazionale alle Funzioni di Professore Universitario di Seconda Fascia, classe di concorso 01/B1 - "Informatica"
Dates (from – to)	2/3/2009
Name and type of organisation	Concorso pubblico per l'assunzione con contratto a tempo indeterminato del CNR
Title of qualification awarded	Idoneità da I° Ricercatore II livello, Area Scientifica "Scienze Informatiche"
Dates (from – to)	January, August 2005
Name and type of organization	Department of Mathematics and Computer Science, University of Antwerp, Belgium
Occupation or position held	SegraVis (EU Network of Excellence) fellow
Dates (from – to)	2003
Name and type of organisation	ISTI-CNR, Pisa, Italy
Occupation or position held	ERCIM (European Research Consortium for Informatics and Mathematics) fellow
Dates (from – to)	2002
Name and type of organisation	Computer and Automation Research Institute, Academy of Sciences, Budapest, Hungary
Occupation or position held	ERCIM fellow
Dates (from – to)	2000-2001
Name and type of organisation	Dipartimento di Informatica, Università di Pisa, Italy
Occupation or position held	EU Socrates grant
Dates (from – to)	1996-2001
Name and type of organisation	Leiden University, The Netherlands
Title of qualification awarded	Ph.D. in Computer Science
Dates (from – to)	1995-1996
Name and type of organisation	Department of General Computer Science, Eötvös Loránd University, Budapest, Hungary
Occupation or position held	Student of Computer Science
Dates (from – to)	1995-1996
Name and type of organisation	Computer and Automation Research Institute, Academy of Sciences, Budapest, Hungary
Occupation or position held	Cultural exchange scholarship of Hungarian Ministry of Culture and Education
Dates (from – to)	1990-1996
Name and type of organisation	Department of Mathematics and Computer Science, Leiden University, Leiden, The Netherlands
Title of qualification awarded	M.Sc. in Computer Science

RESEARCH ACTIVITIES

Research sectors	Formal Methods, Model Checking, Software Product Line Engineering, Software Engineering, Formal languages and automata, Service-Oriented Computing, Theoretical Computer Science
------------------	--

Recent Scientific Activities.

- Participation in research projects:
 - EU FP7-ICT-619583 project LearnPAAd (Model-Based Social Learning for Public Administrations), 2014-2016
 - EU FP7-ICT-600708 project QUANTICOL (A Quantitative Approach to Management and Design of Collective and Adaptive Behaviours), 2013-2017
 - MIUR-PRIN 2010-2011 project CINA: Composizionalità, Interazione, Negoziazione, Autonomia per la società ICT futura, 2012-2016
 - PAR-FAS-2007-2013 project TRACE-IT (Train Control Enhancement via Information Technology), 2011-2013
 - CNR-RSTL project XXL (Sviluppo di nuovi strumenti e tecniche per lo specifica e verifica formale di sistemi ad elevata granularità), 2008-2011
 - MIUR-PRIN 2007 project D-ASAP (Dependable Adaptable Software Architectures for Pervasive Computing), 2008-2011
 - EU FP6-IP-IST-016004 project SENSORIA (Software Engineering for Service-Oriented Overlay Computers), 2005-2010
- Steering Committee member WWV (2014-oggi), FMSPLE (2012-oggi), ISARCS (2007-2013)
- General chair: FMICS-AVoCS 2016
- Workshop chair: SPLC 2014, iFM & ABZ 2012, SEFM 2010
- PC chair: SOAP 2016, WWV 2014-2015, FMSPLE 2014, WS-FM 2012, FMSPLE 2012
- PC member: SPLSeco 2015-2016, ICSOFT-PT 2015-2016, FMSPLE 2013-2015, VaMoS 2012-2016, ICSR 2015-2016, ISoLA 2014-2016, SBCARS 2014-2015, ICTCS 2014, SPLC 2013-2016, WS-FM 2012-2014, FOSD 2012-2013, MEDI 2011-2012, QSIC 2012, SOAP 2010-2012, ACSD 2011, WWV 2011

Selected publications (2010-2015)

Journal papers:

- M.H. ter Beek, A. Fantechi, S. Gnesi, and F. Mazzanti, Modelling and Analysing Variability in Product Families: Model Checking of Modal Transition Systems with Variability Constraints. To appear in Journal of Logical and Algebraic Methods in Programming (2016).
- M.H. ter Beek and J. Kleijn, On Distributed Cooperation and Synchronised Collaboration. Journal of Automata, Languages and Combinatorics 19, 1–4 (2014), 17–32.
- M.H. ter Beek and J. Kleijn, Vector Team Automata. Theoretical Computer Science 429 (2012), 21–29.
- M.H. ter Beek, A. Fantechi, S. Gnesi, and F. Mazzanti, A state/event-based model-checking approach for the analysis of abstract system properties. Science of Computer Programming 76, 2 (2011), 119–135.

Edited volumes:

- M.H. ter Beek, D. Clarke, and I. Schaefer (eds.), Special Issue on Formal Methods in Software Product Line Engineering. Journal of Logical and Algebraic Methods in Programming (2016) 85, 1.
- M.H. ter Beek and A. Lluch Lafuente (eds.), Proceedings 11th International Workshop on Automated Specification and Verification of Web Systems (WWW'15). Electronic Proceedings in Theoretical Computer Science 188, arXiv:1508.03389v1 [cs.LO], 2015.
- S. Gnesi, A. Fantechi, M. ter Beek, G. Botterweck, and M. Becker (eds.), Proceedings 18th International Software Product Line Conference (SPLC'14), Volume 2. ACM Press, New York, 2014.
- M.H. ter Beek and A. Ravara (eds.), Proceedings 10th International Workshop on Automated Specification and Verification of Web Systems (WWW'14). Electronic Proceedings in Theoretical Computer Science 163, arXiv:1409.2294v1 [cs.SE], 2014.
- M.H. ter Beek and N. Lohmann (eds.), Revised Selected Papers of the 9th International Workshop on Web Services and Formal Methods (WS-FM'12). LNCS 7843, Springer, Berlin, 2013.

Book chapters:

- M.H. ter Beek, S. Gnesi, and F. Mazzanti, From EU Projects to a Family of Model Checkers. In Software, Services and Systems (R. De Nicola and R. Hennicker, eds.), LNCS 8950, Springer, 2015, 312–328.
- M.H. ter Beek and J. Kleijn, Shuffles and Synchronized Shuffles: A Survey. In Discrete Mathematics and Computer Science (Gh. Paun, G. Rozenberg, and A. Salomaa, eds.), Editura Academiei Romane (The Publishing House of the Romanian Academy), Bucuresti, Romania, 2014, 37–50.
- M.H. ter Beek, S. Gnesi, D. Latella, M. Massink, M. Sebastianis, and G. Trentanni, An Application of Stochastic Model Checking in the Industry: User-centered Modeling and Analysis of Collaboration in thinkteam. Chapter 9 in Formal Methods for Industrial Critical Systems: A Survey of Applications (S. Gnesi and T. Margaria, eds.), John Wiley & Sons, Inc., 2013, 179–203.

- M.H. ter Beek, E. Csuhaj-Varju, M. Holzer, and Gy. Vaszil, Cooperating Distributed Grammar Systems: Components with Nonincreasing Competence. In *Computation, Cooperation, and Life* (J. Kelemen and A. Kelemenova, eds.), LNCS 6610, Springer, 2011, 70–89.
- M.H. ter Beek, A. Lapadula, M. Loreti, and C. Palasciano, Analysing Robot Movement Using the Sensoria Methods. In *Rigorous Software Engineering for Service-Oriented Systems* (M. Wirsing and M. Holz, eds.), LNCS 6582, Springer, 2011, 678–697.
- M.H. ter Beek, Sensoria Results Applied to the Case Studies. In *Rigorous Software Engineering for Service-Oriented Systems* (M. Wirsing and M. Holz, eds.), LNCS 6582, Springer, 2011, 655–677.

Conference papers:

- M.H. ter Beek, S. Gnesi, D. Latella, and M. Massink. Towards Automatic Decision Support for Bike-Sharing System Design. To appear in *Software Engineering and Formal Methods—Revised Selected Papers of the SEFM 2015 Collocated Workshops: ATSE, HOFM, MoKMaSD, and VERY*SCART* (D. Bianculli, R. Calinescu and B. Rumpe, eds.), LNCS, Springer, Berlin, 2016.
- M.H. ter Beek, F. Damiani, S. Gnesi, F. Mazzanti, and L. Paolini. From Featured Transition Systems to Modal Transition Systems with Variability Constraints. In *Proceedings of the 13th International Conference on Software Engineering and Formal Methods (SEFM'15)* (R. Calinescu and B. Rumpe, eds.), LNCS 9276, Springer, Berlin, 2015, 344–359.
- M.H. ter Beek, A. Fantechi, S. Gnesi, and F. Mazzanti, Using FMC for Family-Based Analysis of Software Product Lines. In *Proceedings of the 19th International Software Product Line Conference (SPLC'15)*, ACM Press, 2015, 432–439.
- M.H. ter Beek, A. Fantechi, and S. Gnesi, Applying the Product Lines Paradigm to the Quantitative Analysis of Collective Adaptive Systems. In *Proceedings of the 19th International Software Product Line Conference (SPLC'15)*, ACM Press, 2015, 321–326.
- M.H. ter Beek, A. Legay, A. Lluch Lafuente, and A. Vandin, Statistical Analysis of Probabilistic Models of Software Product Lines with Quantitative Constraints. In *Proceedings of the 19th International Software Product Line Conference (SPLC'15)*, ACM Press, 2015, 11–15.
- M.H. ter Beek, A. Legay, A. Lluch Lafuente, and A. Vandin, Quantitative Analysis of Probabilistic Models of Software Product Lines with Statistical Model Checking. In *Proceedings of the 6th International Workshop on Formal Methods for Software Product Line Engineering (FMSPL'15)* (J.M. Atlee and S. Gnesi, eds.), *Electronic Proceedings in Theoretical Computer Science* 182, arXiv:1504.03476v1 [cs.LO], 2015, 56–70.
- T. Belder, M.H. ter Beek, and E.P. de Vink, Coherent branching feature bisimulation. In *Proceedings of the 6th International Workshop on Formal Methods for Software Product Line Engineering (FMSPL'15)* (J.M. Atlee and S. Gnesi, eds.), *Electronic Proceedings in Theoretical Computer Science* 182, arXiv:1504.03474v1 [cs.LO], 2015, 14–30.
- M.H. ter Beek, S. Gnesi, and F. Mazzanti, Model Checking Value-Passing Modal Specifications. In *Perspectives of System Informatics—Revised selected papers of the 9th International Ershov Informatics Conference (PSI'14)* (A. Voronkov and I. Virbitskaite, eds.), LNCS 8974, Springer, 2015, 304–319.
- M.H. ter Beek and E.P. de Vink, Towards Modular Verification of Software Product Lines with mCRL2. In *Proceedings of the 6th International Symposium on Leveraging Applications of Formal Methods, Verification and Validation (ISoLA'14)*, LNCS 8802, Springer, 2014, 368–385.
- M.H. ter Beek, A. Fantechi, and S. Gnesi, Challenges in Modelling and Analyzing Quantitative Aspects of Bike-Sharing Systems. In *Proceedings of the 6th International Symposium on Leveraging Applications of Formal Methods, Verification and Validation (ISoLA'14)*, LNCS 8802, Springer, 2014, 351–367.
- M.H. ter Beek and E.P. de Vink, Software Product Line Analysis with mCRL2. In *Proceedings of the 1st Workshop on Software Product Line Analysis Tools (SPLat'14)*, Volume 2 of the Proceedings of the 18th International Software Product Line Conference (SPLC'14), ACM Press, 2014, 78–85.
- M.H. ter Beek and F. Mazzanti, VMC: Recent Advances and Challenges Ahead. In *Proceedings of the 1st Workshop on Software Product Line Analysis Tools (SPLat'14)*, Volume 2 of the Proceedings of the 18th International Software Product Line Conference (SPLC'14), ACM Press, 2014, 70–77.
- M.H. ter Beek and E.P. de Vink, Using mCRL2 for the Analysis of Software Product Lines. In *Proceedings of the 2nd FME Workshop on Formal Methods in Software Engineering (FormaliSE'14)*, IEEE Computer Society, 2014, 31–37.
- M.H. ter Beek, A. Lluch Lafuente, and M. Petrocchi, Combining Declarative and Procedural Views in the Specification and Analysis of Product Families. In *Proceedings of the 17th International Software Product Line Conference (SPLC'13)*, Volume 2, ACM Press, 2013, 10–17.
- M.H. ter Beek, F. Gadducci, and F. Santini, Validating Reconfigurations of Reo Circuits in an e-Banking Scenario. In *Proceedings of the 4th International ACM Sigsoft Symposium on Architecting Critical Systems (ISARCS'13)*, ACM Press, 2013, 39–47.
- P. Asirelli, M.H. ter Beek, A. Fantechi, and S. Gnesi, A Compositional Framework to Derive Product Line Behavioural Descriptions. In *Proceedings 5th International Symposium on Leveraging Applications of Formal Methods, Verification & Validation (ISoLA'12)*, LNCS 7609, Springer, 2012, 146–161.
- M.H. ter Beek, H. Muccini, and P. Pelliccione, Assume-Guarantee Testing of Evolving Software Product Line Architectures. In *Proceedings of the 4th International Workshop on Software Engineering for Resilient Systems (SERENE'12)*, LNCS 7527, Springer, 2012, 91–105.

- M.H. ter Beek, S. Gnesi, and F. Mazzanti, Demonstration of a model checker for the analysis of product variability. In Proceedings of the 16th International Software Product Line Conference (SPLC'12), Volume II, ACM Press, 2012, 242–245.
- M.H. ter Beek, F. Mazzanti, and A. Sulova, VMC: A Tool for Product Variability Analysis. In Proceedings of the 18th International Symposium on Formal Methods (FM'12), LNCS 7436, Springer, 2012, 450–454.
- M.H. ter Beek, A. Fantechi, J.L. Fiadeiro, and S. Gnesi, Variability and Rigour in Service Computing Engineering. In Proceedings of the 34th Annual IEEE Software Engineering Workshop (SEW 2011), IEEE Computer Society, 2012, 122–127.
- M.H. ter Beek, H. Muccini, and P. Pelliccione, Guaranteeing Correct Evolution of Software Product Lines: Setting up the Problem. In Proceedings of the Third International Workshop on Software Engineering for Resilient Systems (SERENE'11), LNCS 6968, Springer, 2011, 100–105.
- P. Asirelli, M.H. ter Beek, A. Fantechi, and S. Gnesi, Formal Description of Variability in Product Families. In Proceedings of the 15th International Software Product Line Conference (SPLC 2011), IEEE Computer Society, 2011, 130–139.
- P. Asirelli, M.H. ter Beek, A. Fantechi, and S. Gnesi, A Model-Checking Tool for Families of Services. In Proceedings of the 13th International Conference on Formal Methods for Open Object-based Distributed Systems (FMOODS'11), LNCS 6722, Springer, 2011, 44–58.
- P. Asirelli, M.H. ter Beek, A. Fantechi, S. Gnesi, and F. Mazzanti, Design and Validation of Variability in Product Lines. In Proceedings of the 2nd International Workshop on Product Line Approaches in Software Engineering (PLEASE 2011), Companion Proceedings of the 33rd International Conference on Software Engineering (ICSE 2011), ACM Press, 2011, 25–30.
- P. Asirelli, M.H. ter Beek, A. Fantechi, and S. Gnesi, A Logical Framework to Deal with Variability. In Proceedings of the 8th International Conference on Integrated Formal Methods (IFM'10), LNCS 6396, Springer, 2010, 43–58.
- M.H. ter Beek, A. Fantechi, S. Gnesi, and G. Zavattaro, Modelling Variability, Evolvability, and Adaptability in Service Computing. In Proceedings of the 1st International Workshop on Automated Configuration and Tailoring of Applications (ACoTA'10), CEUR WS Proceedings 688, 2010, 14–19.
- P. Asirelli, M.H. ter Beek, A. Fantechi, and S. Gnesi, A deontic logical framework for modelling product families. In Proceedings of the Fourth International Workshop on Variability Modelling of Software-intensive Systems (VaMoS'10), ICB Research Report 37, U. Duisburg-Essen, 2010, 37–44.

**TRATTAMENTO DEI DATI
PERSONALI, INFORMATIVA E
CONSENSO**

Il D.Lgs 30/06/2003, n. 196 “*Codice in materia di protezione dei dati personali*” regola il trattamento dei dati personali, con particolare riferimento alla riservatezza, all'identità personale e al diritto di protezione dei dati personali; l'interessato deve essere previamente informato del trattamento.

La norma in considerazione intende come “trattamento” qualunque operazione o complesso di operazioni concernenti la raccolta, la registrazione, l'organizzazione, la conservazione, la consultazione, l'elaborazione, la modifica, la selezione, l'estrazione, il raffronto, l'utilizzo, l'interconnessione, il blocco, la comunicazione, la diffusione, la cancellazione e la distruzione di dati, anche se non registrati in una banca dati.

In relazione a quanto riportato, autorizzo il CNR al trattamento dei dati contenuti nel presente *curriculum vitae* e nella documentazione della quale fa parte integrante, sollevandolo da ogni responsabilità e autorizzandolo alla pubblicazione, sul sito web del CNR, della relazione inerente alle proprie ricerche svolte nell'ambito del Progetto finanziato dal CNR. Inoltre acconsento all'aggiornamento delle informazioni intranet che mi riguardano sia relative le pubblicazioni sia alle ricerche svolte.

The Undersigned hereby authorises the CNR to utilize and store the personal sensitive data contained in the attached Curriculum Vitae for the purposes of bilateral Joint research projects and within the framework of the Data protection Act No. 196, dates 30 June 2003 as promulgated by the Italian Government.

(barrare la casella)



Si, acconsento/Yes