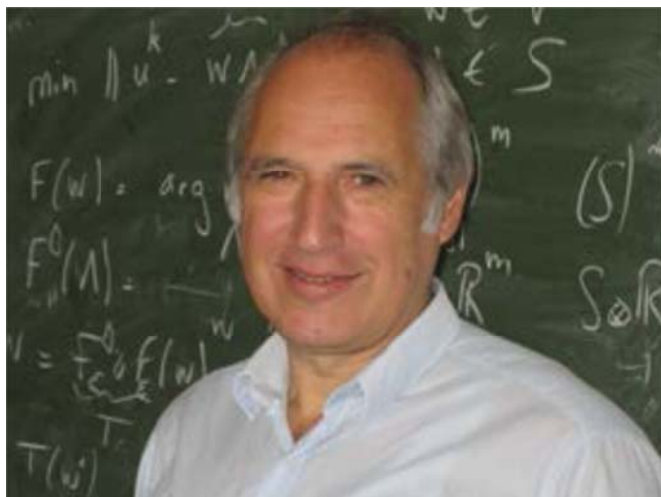


**ŽIVOTOPIS predavača: Prof. Hermann G. MATTHIES , Ph.D.**



**Prof. Hermann G. Matthies, Ph.D.**  
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Germany

Date of birth: 01.05.1951 in Hamburg

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#### **Professional career**

- |           |   |
|-----------|---|
| 2015      | Nominated Professor Université de Technologie de Compiègne UTC, LABEX MS2T chair of excellence, Compiègne, France |
| 2013      | Invited Professor at King Abdullah University of Science and Technology (KAUST), Thuwal, Saudia Arabia            |
| 2012      | Professeur Invité, Université Lille 1 Sciences et Technologies, Lille, France                                     |
| 2011      | Visiting Professor Korea Advanced Institute of Science and Technology (KAIST), Daejon, South Korea                |
| 2008      | Visiting Professor University of Queensland, St. Lucia, Brisbane, Australia                                       |
| 2007      | Professeur Invité, École Normale Supérieure (ENS) de Cachan, Paris, France  |
| 2004–2005 | Professeur Invité, École Normale Supérieure (ENS) de Cachan, Paris, France  |
| 2005      | Established the "Gauss Centre for Modelling and Simulation", served as chairman 2005-2011                         |
| 2004      | Visiting Professor, University of Queensland, St. Lucia, Brisbane, Australia                                      |
| 2003      | Invited Professor, Lincoln University, Lincoln/Christchurch, New Zealand  |
| 2003      | Invited Professor, ICES, University of Texas, Austin, USA   |
| 2002–2003 | Professeur Invité, École Normale Supérieure (ENS) de Cachan, Paris, France  |

2000	Invited Professor, SERC-CSIR, Chennai (Madras) and NLR, Bangalore, India
1996–2006 since 1995	Director of University Computing Centre, TU Braunschweig Professor and Director of the Institute of Scientific Computing, Technische Universität Braunschweig
1982-1995	Head of Structural Analysis Group/Offshore Dept., Research Coordinator, Germanischer Lloyd, Hamburg, Germany
1981-1982	Director, Werner Matthies Engineering Co. (WMI), Hamburg, Germany
1979-1981	Research Analyst, Germanischer Lloyd, Hamburg, Germany

### ***Functions in university, foundations and in associations***

Since 2013	Advisory Board, KAUST SRI Center for Uncertainty Quantification in Computational Science & Engineering
1996–2004	Vice-Chairman of DFG-funded graduate school (Graduiertenkolleg) "Interaction of Solids and Fluids"
1996	Initiated a new Master's Course "Computational Science in Engineering (CSE)", served as chairman 1997–2005, as vice-chairman 2006–present
1996–2004	Vice-Chairman of DFG-funded graduate school (Graduiertenkolleg) "Interaction of Solids and Fluids"
1990–1995	Joint Committee on Structural Safety
1988-1993	Komitee für Wind Turbinen, Deutsches Institut für Bautechnik (DIBT) Deputy Speaker of GAMM expert committee "Multi-Field Problems" Fulbright counselor at Technische Universität Braunschweig

### ***Professional recognitions, awards & honors***

2017	Gay-Lussac- Humboldt Prize for Experienced Researchers
2013	Elected Full Member of Braunschweigische Wissenschaftliche Gesellschaft
2012	One of the Top 25 Hottest Articles published in Computers & Structures
2010	"Emerald Literati Network" Highly Commended Award
2008	Most Cited Author Award (2005-2008) "Comp. Meth. Appl. Mech. Engrng"
2004	Fellow Award of Intl. Assoc. Computational Mechanics (IACM)
2003	J. Tinsley Oden Scholarship, ICES, University of Texas at Austin
2000	DAAD-CSIR Invited Professor Scholarship
1976-1978	DAAD scholarship for graduate studies at MIT, Cambridge, USA

### ***Editorial boards***

Since 2013	Editorial Board, Coupled Systems Mechanics (CSM)
Since 2012	Editorial Advisory Board, Advanced Modelling and Simulation in Engineering Sciences (AMSES)
Since 2012	Editorial Board of "SIAM Journal on Uncertainty Quantification"
2007-2009	Editorial Board of "SIAM Journal on Numerical Analysis"
2005	Guest Editor with R. Ohayon of "Computers & Structures" 83(1/2)
2001-2006	Editorial Advisory Board of "Computer & Structures"

## **Completed PhD projects (2009 – 2017)**

1. Francesca Marsili, Bayesian Approaches to the Reliability Assessment of Existing Structures (2017)
2. Emanuele El Basri, Development of a fault detection algorithm for an alternate aerobic/anoxic cycle nitrogen removal process (2017)
3. Valentina Chiarello, Analysis with uncertainty of hydrological extreme events (2016)
4. Giovanni Stabile; A Reduced Order Model for the Dynamics of Long Flexible Cylinders in an Offshore Environment (2016)
5. Marcel Wallraff; An investigation of multigrid algorithms for a higher order Discontinuous Galerkin RANS solver (2016)
6. Alberto Ciavattone, Seismic Vulnerability Analysis for Masonry Hospital Structures: Expedient and Detailed Methods (2014)
7. Fritz-Adrian Lülf, „An integrated method for the transient solution of reduced order models of geometrically nonlinear structures” (2013), Post-doc LU Hannover
8. Bojana Rosić, Variational formulations and functional approximation algorithms in stochastic plasticity of materials (2012), Post-doc TU Braunschweig
9. Martin Krosche, A generic component-based software architecture for the simulation of probabilistic models (2012), Post-doc TU Braunschweig
10. Elmar Zander, Tensor Approximation Methods for Stochastic Problems (2012), Post-doc TU Braunschweig
11. Oliver Pajonk, Stochastic Spectral Methods for Linear Bayesian Inference (2012), Elektrobit, Braunschweig
12. Alicia Jürgens-Ortega, Modelling and Simulation of Building Evacuation in Emergency Conditions – an Agent Based Approach (2010), Elektronische Fahrwerksysteme GmbH, Gaimersheim
13. Dishi Liu, Uncertainty Quantification with Shallow Water Equations (2009), DLR Braunschweig
14. Christophe Kassiotis, Nonlinear Fluid-Structure Interaction: A Partitioned Approach and its Application Through Component Technology (2009), Autorité de sûreté nucléaire (ASN), Paris
15. Martin Hautefeuille, Numerical Modeling Strategy for Heterogeneous Materials: A FE Multi-scale and Component-based Approach (2009), Bloomberg LP, New York

## **Publications (selected)**

1. Sergey Dolgov and Boris N. Khoromskij and Alexander Litvinenko and Hermann G. Matthies: *Polynomial Chaos Expansion of random coefficients and the solution of stochastic partial differential equations in the Tensor Train format*. SIAM/ASA Journal on Uncertainty Quantification 3 (2015) 1109–1135. [doi: 10.1137/140972536](https://doi.org/10.1137/140972536).
2. Bojana V. Rosić and Hermann G. Matthies: *Variational Theory and Computations in Stochastic Plasticity*. Archives of Computational Methods in Engineering 22 (2015) 457–509. [doi: 10.1007/s11831-014-9116-x](https://doi.org/10.1007/s11831-014-9116-x).
3. Loïc Giraldi and Dishi Liu and Hermann G. Matthies and Anthony Nouy: *To be or not to be intrusive? The solution of parametric and stochastic equations — Proper Generalized Decomposition*. SIAM Journal of Scientific Computing 37 (2015) A347–A368. [doi: 10.1137/140969063](https://doi.org/10.1137/140969063).

4. Hermann G. Matthies and Adnan Ibrahimbegović : Stochastic Multiscale Coupling of Inelastic Processes in Solid Mechanics. In: M. Papadrakakis and G. Stefanou (eds.): *Multiscale Modelling and Uncertainty Quantification of Materials and Structures*, 3 (2014) 135–157. Springer-Verlag, Berlin. [Doi: 10.1007/978-3-319-06331-7\\_9](https://doi.org/10.1007/978-3-319-06331-7_9).
5. Mohammad Hadigol and Alireza Doostan and Hermann G. Matthies and Rainer Niekamp: *Partitioned treatment of uncertainty in coupled domain problems: A separated representation approach*. Comp. Meth. Appl. Mech. Engrng. 274 (2014) 103–124. (Preprint as [214]) [doi: 10.1016/j.cma.2014.02.004](https://doi.org/10.1016/j.cma.2014.02.004).
6. Adnan Ibrahimbegović and Rainer Niekamp and Christophe Kassiotis and Damijan Marković and Hermann G. Matthies: *Code-coupling strategy for efficient development of computer software in multiscale and multiphysics nonlinear evolution problems in computational mechanics*. Advances in Engineering Software 72 (2014) 8–17. [doi: 10.1016/j.advengsoft.2013.06.014](https://doi.org/10.1016/j.advengsoft.2013.06.014).
7. Mohammad Hadigol and Alireza Doostan and Hermann G. Matthies and Rainer Niekamp: *Partitioned treatment of uncertainty in coupled domain problems: A separated representation approach*. [arXiv: 1305.6818](https://arxiv.org/abs/1305.6818) [math.PR], 2013.
8. Bojana V. Rosićand Anna Kučerováand Jan Sýkora and Oliver Pajonk and Alexander Litvinenko and Hermann G. Matthies: *Parameter Identification in a Probabilistic Setting*. Engineering Structures 50(2013) 179–196. [doi: 10.1016/j.engstruct.2012.12.029](https://doi.org/10.1016/j.engstruct.2012.12.029).
9. Oliver Pajonk and Bojana V. Rosićand Hermann G. Matthies: *Sampling-free linear Bayesian updating of model state and parameters using a square root approach*. Computers & Geosciences 55 (2013) 70–83. [doi: 10.1016/j.cageo.2012.05.017](https://doi.org/10.1016/j.cageo.2012.05.017).
10. Adnan Ibrahimbegovićand Hermann G. Matthies: *Probabilistic multiscale analysis of inelastic localized failure in solid mechanics*. Computer Assisted Methods in Engineering and Science 19 (2012) 277–304.