

# MARIA G. WESTDICKENBERG

Curriculum Vitae, October 2021

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## EDUCATION

2004 Ph.D. Applied Mathematics, Courant Institute, New York University, USA  
2000 M.S. Applied Mathematics, Rensselaer Polytechnic Institute, USA

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## EMPLOYMENT HISTORY

2012 – present Professor of Mathematics (W2), RWTH Aachen University, Germany  
08 – 12/2011 Associate professor (tenured), Georgia Institute of Technology (GT), USA  
2006 – 07/2011 Assistant Professor, Georgia Institute of Technology, USA  
2005 – 2006 NSF Postdoctoral Fellow and Instructor, Princeton University, USA  
2004 – 2005 NSF Postdoctoral Fellow, University of Bonn, Germany

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## HONORS, AWARDS, AND RECOGNITIONS

2011 Presidential Early Career Award (PECASE), USA  
2010 Alfred P. Sloan Research Fellowship, USA  
2004 – 2007 National Science Foundation Postdoctoral Research Fellowship, USA  
2005 Kurt O. Friedrichs Dissertation Prize, Courant Institute, USA  
2002 Bella Manel Prize, Courant Institute, USA  
2000 – 2004 Henry M. MacCracken Fellowship, Courant Institute, USA

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## RESEARCH GRANTS AND CONTRACTS

2018 – RTG: Energy, Entropy, and Dissipative Dynamics (EDDy), **Co-PI**  
2016 – 2020 DFG Individual Grant , WE 5760/1-1, **Principal Investigator**  
2011 – 2016 NSF S-STEM Grant 1060333, **Co-PI**  
2010 – 2015 NSF CAREER Grant DMS 0955051, **Principal Investigator**  
(returned due to move to Germany)  
2007 – 2010 NSF Grant DMS 0706026, **Principal Investigator**

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## SUPERVISION OF PHD STUDENTS AND POSTDOCTORAL FELLOWS

04/19 – 09/21 Richard Schubert, **Postdoctoral fellow**  
10/18 – 07/21 Sarah Biesenbach, **Doctoral student** in RTG EDDy  
Co-supervised with Professor Heiko von der Mosel  
01– 08/17 ` Olga Chugreeva, **Postdoctoral fellow**  
*Exit position: ERGO Group AG: Referentin, Aktuarielles Bestandsmanagement*  
2015 – 2017 Sebastian Scholtes, **Postdoctoral fellow**  
*Exit position: TN CURA GMBH: Systemanalytiker*  
2012 – 2015 Michael Gelantalis, **Postdoctoral fellow**  
*Exit position: Lecturer, University of Tennessee*

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## RESEARCH CAREER BREAKS

10/2018 – 09/2019 Personal leave: 50% (RWTH)  
10/2017 – 09/2018 Personal leave: 100% (RWTH)  
08/2011 – 12/2011 Personal leave (with partial grant funding) due to move to Germany (GT)  
09/2008 – 12/2008 “Active service/ Modified duties” due to birth of child (GT)

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 WORKSHOP ORGANIZATION

2021 (May)	SIAM Materials Science, Minisymposium co-organizer [online]: Multiscale and stochastic effects in evolution of materials
2020 (May)	SIAM Materials Science, Bilbao, Minisymposium co-organizer [postponed due to Corona crisis]
2019 (July)	ICIAM, Valencia, Minisymposium co-organizer: Rings, wrinkles, and vortices: Singularities in the nonlinear eq. of materials science
2017 (April)	Aachen-Augsburg-Applied-Analysis Workshop Co-organized with Sebastian Scholtes (RWTH) and Dirk Blömker (Augsburg)
2012 (October)	Fifth Workshop on Random Dynamical Systems Co-organized with Barbara Gentz

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 SELECTED INVITED TALKS (2/2014 – 12/2020)

2021 (June)	PDE Seminar, University of Chile [online]
2021 (May)	Minisymposium talk, SIAM Materials Science [online]
2020 (Nov)	Applied PDEs Seminar, Imperial College London [online]
2020 (Sept)	Oberwolfach workshop talk, Variational Methods for Evolution [in-person]
2021 (May)	Minisymposium talk, SIAM Materials Science [postponed due to Corona crisis]
2020 (March)	Workshop talk, Ulm University [postponed due to Corona crisis]
2020 (Jan)	Workshop talk, University Paul Sabatier, Toulouse, France
2019 (June)	Workshop talk, Fields Institute, Toronto, Canada
2019 (Jan)	RTG <u>Colloquium</u> , FAU Erlangen-Nürnberg
2017 (March)	VU-UvA Dynamical Analysis Seminar
2016 (Sept)	Workshop talk, Mittag-Leffler Institute, Stockholm, Sweden
2016 (Sept)	Principal speaker at GAMM PDE Meeting
2016 (July)	Minisymposium talk, AIMS Dynamical Systems Conference, Orlando, USA
2016 (April)	Minisymposium talk, SIAM Uncertainty Quantification, Lausanne, Switzerland
2016 (Jan)	<u>Colloquium</u> , Universität Münster
2015 (Nov)	Eighth Workshop on Random Dynamical Systems, Bielefeld
2015 (July)	Minisymposium talk, Equadiff, Lyon, France
2015 (Jan)	Workshop talk, Hausdorff Research Institute for Mathematics
2014 (July)	<u>Colloquium</u> , Universität Düsseldorf
2014 (June)	Workshop talk, Lorentz Center, Leiden, Netherlands
2014 (May)	Workshop talk, Institute for Mathematics and its Applications, Minneapolis, USA
2014 (Feb)	<u>Winter School Lecturer</u> , Würzburg

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 TEACHING EXPERIENCE

10/2020 – 03/2021	9 hours/week, Stochastic Analysis and Seminar on ODEs, digital teaching
04/2020 – 09/2020	9 hours/week, ODE and proseminar, RWTH, digital teaching
10/2019 – 03/2020	9 hours/week, PDE II and seminar, RWTH
10/2018 – 03/2020	4 ½ hours/week, RWTH
04/2012 – 09/2017	9 hours/week, lectures and seminars, RWTH including PDE, Calculus of Variations, Stochastic Analysis, Higher Mathematics for Physicists and Electrical Engineers
08/2006 – 07/2011	2:1 teaching at Georgia Institute of Technology including Analysis, Calculus, Industrial Mathematics, Calculus of Variations, ODEs, Numerical Methods
09/2005 – 01/2006	Developed and taught Intro to ODE and PDE, Princeton University, USA
09/2000 – 05/2004	Independent instructor and teaching assistant, NYU, USA
02/1994 – 06/1998	K-12 and special education teacher and related service (4 years), USA

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 SUPERVISION OF MASTER AND BACHELOR STUDENTS (2020-2021)

2021	Simon Paulus, Bachelor thesis
2021	Antonia Berger, Bachelor thesis
2021	Jonas Nießen, Bachelor thesis
2020	Philip Kreins, Master thesis (minimizers and metastability in a 1d parabolic equation)
2020	Nicolas Freches, Bachelor thesis (quantitative deformation lemma)
2020	Paul Mork, Bachelor thesis (existence for the Mullins-Sekerka evolution)
2020	Daniel Meinert, Bachelor thesis (blowup via similarity solutions)

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 INSTITUTIONAL SERVICE

Ongoing	Undergraduate curriculum committee (Kommission für Lehre)
Ongoing	Hiring committees at RWTH (member, seven committees)
Ongoing	Gender & diversity representative (Gleichstellungsbeauftragte Vertreterin)
2012	Foundation of the Joint Analysis Seminar
Ongoing	Thesis committee reviewer (Xinye Li, 2020, Olga Chugreeva, 2016)

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 EXTERNAL SERVICE

[1 ] Founded and organized the European Women in Mathematics Working Group on the Corona Crisis, writing an open letter that gained over 900 signatures and 12 endorsements from organizations including GAMM, UMI, SEMA, and others. Co-developed and co-maintained associated webpages (ongoing). Participant in related Mathematrix panel discussion (Oxford University, online, 30 Nov, 2020).

[2] Review grant and SFB proposals: Deutsche Forschungsgemeinschaft (DFG) and National Science Foundation (NSF)

[3] Referee research articles for multiple journals, including *Archive for Rational Mechanics and Analysis*, *Communications on Pure and Applied Mathematics*, *Indiana University Mathematics Journal*, *European Mathematical Society: Interfaces and Free Boundaries*, *Journal of Functional Analysis*, *Nonlinearity*, *Physics Letters A*, *Probability Theory and Related Fields*, *SIAM Journal of Math Analysis*

[4] Member, external job committees: TU Eindhoven (2017), Universität Leipzig (2019-2020)

[5] Mentor, Association for Women in Mathematics (since 2010), European Women in Mathematics (since 2020)

[6] External thesis committee member: Mikola Schlottke (2020; TU Eindhoven)

[7] Invited panelist at the Celebration of Women in Mathematics (2021; MSRI) [online]

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 TEACHING MATERIALS DEVELOPED

2020	Lecture notes: Ordinary Differential Equations (German)
2014 – 2017	Development of eTests for HM I and II together with the assistants (German)
2013 – 2019	Lecture notes: Calculus of Variations (English)
2013 – 2019	Lecture notes: Partial Differential Equations (German)
2012 – 2018	Lecture notes: Higher Math. I and II for Electrical Engineers and Physicists (German)