

Adrian M. Ruf – Curriculum Vitae

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Education/Employment

- 2019 **Postdoctoral fellow**, ETH Zürich, Switzerland
Mentor: Prof. Siddhartha Mishra
- 2019 **PhD in Mathematics**, University of Oslo, Norway
Marie Skłodowska-Curie research position
Supervisors: Prof. Nils Henrik Risebro and Prof. Kenneth Hvistendahl Karlsen
- 2016 **MSc in Mathematics**, Technical University of Berlin, Germany
Supervisor: Prof. Etienne Emmrich
- 2013 **BSc in Mathematics**, Technical University of Berlin, Germany

Publications

- [4] N. H. Risebro and A. M. Ruf. Numerical investigations into a model of partially incompressible two-phase flow in pipes. *SeMA*, (2019)
[doi:10.1007/s40324-019-00207-9](https://doi.org/10.1007/s40324-019-00207-9)
- [3] A. M. Ruf, E. Sande, and S. Solem. The optimal convergence rate of monotone schemes for conservation laws in the Wasserstein distance. *J. Sci. Comput.*, 80: 1764, (2019)
[doi:10.1007/s10915-019-00996-1](https://doi.org/10.1007/s10915-019-00996-1)
- [2] J. Ridder and A. M. Ruf. A convergent finite difference scheme for the Ostrovsky–Hunter equation with Dirichlet boundary conditions. *Bit Numer. Math.*, 59: 775, (2019)
[doi:10.1007/s10543-019-00746-7](https://doi.org/10.1007/s10543-019-00746-7)
- [1] A. M. Ruf. Convergence of a full discretization for a second-order nonlinear elastodynamic equation in isotropic and anisotropic Orlicz spaces. *Z. Angew. Math. Phys.*, 68: 118, (2017)
[doi:10.1007/s00033-017-0863-z](https://doi.org/10.1007/s00033-017-0863-z)

Preprints

- [5] J. Badwaik and A. M. Ruf. Convergence rates of monotone schemes for conservation laws with discontinuous flux.
<https://arxiv.org/abs/1908.08772>

Grants and Scholarships

- 2020 Research-in-Pairs grant, Oberwolfach Research Institute for Mathematics, Germany
- 2019 Scholarship for NUMHYP2019, University of Málaga, Spain
- 2018 Scholarship for an academic secondment, ETH Zürich, Switzerland
- Scholarship for HYP2018, Penn State University, USA

Research visits

- 2019 Julius Maximilian University of Würzburg, Germany,
 with Jayesh Badwaik (1 week)
- Polytechnic University of Bari, Italy,
 with Prof. Giuseppe Coclite (1 week)
- 2018 ETH Zürich, Switzerland,
 with Prof. Siddhartha Mishra (3 months)

Invited talks

- 2019 *Convergence rates of monotone schemes in the Wasserstein distance*
 Julius Maximilian University of Würzburg, Germany
- Second-order numerical methods for nonlocal conservation laws*
 Polytechnic University of Bari, Italy
- Second-order numerical methods for nonlocal conservation laws*
 ETH Zürich, Switzerland

Contributed talks

- 2019 *Second-order numerical methods for nonlocal conservation laws*
 NumHyp2019
 University of Málaga, Spain
- 2018 *A second-order method for nonlocal conservation laws*
 BIT Circus
 Aalto University, Finland
- The Ostrovsky–Hunter equation with Dirichlet boundary conditions*
 Hyp2018
 Penn State University, USA
- Multiphase flow in pipelines*
 Modcompshock Midterm Review Meeting
 ETH Zürich, Switzerland

Academic experience

- 2019 **Simula Research Laboratory, Fornebu, Norway**
Teaching assistant
Taught the course ‘Communication Scientific Research’ for PhD students and post-docs
- 2010 - **Technical University Berlin, Germany**
2016 *Teaching assistant*
Taught courses in Functional analysis, Calculus and Calculus for engineers
- 2015 - **Matheon Research Center, Berlin, Germany**
2016 *Student assistant*
Organized the Matheon advent calendar for students, coordinated and revised the calendar puzzles and solutions
- 2015 **TUBS, Berlin, Germany**
Coordinating assistant
Coordinated the 79th annual meeting of the DPG
- 2011 - **Unitus project Technical University of Berlin, Germany**
2012 *Student assistant*
Created and improved activity oriented learning materials used in mathematical courses for engineers, e.g. supporting teaching material, online platform Mumie, guidelines for teaching assistants, exam difficulty analyses

Languages

German	Mother tongue
English	Proficient
Finnish	Basic knowledge
Norwegian	Basic knowledge