

# Adrian Montgomery Ruf

## Curriculum Vitae

✉ [adrianru@math.uio.no](mailto:adrianru@math.uio.no)

📄 [adrianmruf.github.io](https://github.com/adrianmruf)

## Education/Employment

- 2018 **Guest Researcher**, *ETH Zürich*, Switzerland.  
Duration: Three months  
Supervisor: Prof. Siddhartha Mishra
- since 2016 **PhD Mathematics**, *University of Oslo*, Norway.  
Marie Skłodowska–Curie research position in the ModCompShock network  
Supervisor: Prof. Nils Henrik Risebro
- 2013–2016 **MSc Mathematics**, *TU Berlin*, Germany.  
Thesis: *A class of nonlinear Evolution equations of second order*  
Supervisor: Prof. Etienne Emmrich
- 2008–2013 **BSc Mathematik**, *TU Berlin*, Germany.  
Thesis: *Operations for nonnegative forms with an application to contents*  
Supervisor: Prof. Karl-Heinz Förster

## Publications

- 2018 A. M. Ruf, E. Sande, and S. Solem. “The optimal convergence rate of monotone schemes for conservation laws in the Wasserstein distance”. URL: <https://arxiv.org/abs/1808.04661>.
- J. Ridder and A. M. Ruf. “A convergent finite difference scheme for the Ostrovsky–Hunter equation with Dirichlet boundary conditions”. URL: <https://arxiv.org/abs/1805.07255>.
- 2017 A. M. Ruf. “Convergence of a full discretization for a second-order nonlinear elastodynamic equation in isotropic and anisotropic Orlicz spaces”. In: *Zeitschrift für angewandte Mathematik und Physik* 68.5, p. 118. DOI: 10.1007/s00033-017-0863-z.

## Awards and Scholarships

- 2018 **Scholarship for an academic secondment**, *ETH Zürich*, Switzerland.
- 2018 **Scholarship for HYP2018**, *Penn State University*, State College, USA.  
XVII International Conference on Hyperbolic Problems: Theory, Numerics, Applications

## Conference presentations

- 2018 **BIT Circus**, *Aalto University*, Finland.  
A second-order method for nonlocal conservation laws

- 2018 **Hyp2018**, *Penn State University*, USA.  
The Ostrovsky–Hunter equation with Dirichlet boundary conditions

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## Academic experience

- 2018 **Supervision of Bachelor students**, *University of Oslo*.
- 2010–2016 **Teaching assistant**, *TU Berlin*.  
Supervision of courses in
- Functional analysis
  - Analysis
  - Analysis for engineers
- in both German and English
- 2015–2016 **Student assistant**, *Matheon Research Center*, Berlin.
- Organization of the Matheon advent calendar for students
  - Coordination and revision of the calendar puzzles and solutions
  - Donor acquisition
- 2015 **Coordinating assistant**, *TUBS*, Berlin.  
79th annual meeting of the DPG.
- Coordination of the Conference check in
  - Service at the info desk
- 2011–2012 **Student assistant**, *Unitus project*, TU Berlin.  
Created and improved activity oriented learning materials used in mathematical courses for engineers, e.g.
- supporting teaching material
  - online platform Mumie
  - guidelines for tutorials
  - exam analyses
- 2009–2011 **Freelancer**, *Uniseminar Education AG*, Zürich.  
Created and typesetted various mathematical teaching materials in  $\text{\LaTeX}$  for the courses
- Mathematics I & II
  - Mathematical economics

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## Languages

- German Mother tongue
- English Proficient
- Finnish Basic knowledge
- Norwegian Basic knowledge