

Maria Zeitz

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Education

PH.D. CANDIDATE | CLIMATE PHYSICS | SINCE JULY 2017

- Potsdam Institute for Climate Impact Research, Potsdam, Germany
- Title: “Constraining the tipping of Greenland and its influence on Antarctica”
- Planned finish: Beginning of 2021

DIPLOMA (BACHELOR AND MASTER STUDIES) | PHYSICS | OCTOBER 2006 – JANUARY 2013

- Technical University Dortmund, Germany
- Diploma Thesis: “Feedback Mechanism of Microtubule Polymerization Regulation”
- Grade: **With distinction**

MASTER OF SCIENCE | BIOPHYSICS | SEPTEMBER 2009 – JULY 2010

- Université Pierre et Marie Curie, Paris, France
- Master thesis: “Reversibility of Red Blood Cell Deformation”
- Grade: Good
- Funded with a **DAAD scholarship**

ABITUR | JULY 2008

- Ruhr Gymnasium Witten, Germany
- Grade: Very good (among the best 5%)

Scientific Experience

RESEARCH ASSISTANT | POTSDAM INSTITUTE FOR CLIMATE IMPACT RESEARCH | SINCE JULY 2017

Potsdam, Germany

Research projects:

- Influence of the flow of ice on the ice loss of the Greenland Ice Sheet under the influence of global warming
- Effect of albedo changes on ice loss in Greenland

RESEARCH ASSISTANT | TECHNICAL UNIVERSITY OF BERLIN | OCTOBER 2013 – JUNE 2017

Berlin, Germany

Research projects

- Control of fluid vorticity at low Reynolds numbers
- Active Brownian particles in disordered media

RESEARCH ASSISTANT | TECHNICAL UNIVERSITY DORTMUND | FEBRUARY 2013 – SEPTEMBER 2017

Dortmund, Germany

Research projects

- Feedback Mechanism for Microtubule Length Regulation by Stathmin Gradients

Publications

- Zeitz, Wolff, Stark, Active Brownian Particles moving in a random Lorentz gas, Eur. Phys. J. E (2017)
- Zeitz, Gurevich, Stark, Feedback control of flow vorticity at low Reynolds numbers, Eur. Phys. J. E (2015)
- Zeitz, Kierfeld, Feedback Mechanism for Microtubule Length Regulation by Stathmin Gradients, Biophys. J. (2014)
- Zeitz, Sens, Reversibility of red blood cell deformation, Phys. Rev. E (2012)

Scientific presentations at workshops and conferences

- 06/2019 Co-organized workshop on Social Tipping Elements relevant to stay within Planetary Boundaries, Cologne, Germany
- 04/2019 Poster: Sensitivity of ice loss to variations in the flow law, EGU General Assembly, Vienna, Austria
- 06/2018 Presentation: Is Glen's flow law flawed?, Glaciers Group, Geophysical Institute, University of Alaska, Fairbanks
- 04/2018 Poster: Is Greenlands flow law flawed?, EGU General Assembly, Vienna, Austria
- 2016 Poster: Single active Brownian particles in a random environment, Microswimmers, Bonn, Germany
- 2016 Presentaion: Transport of active Brownian particles in complex environments, DPG Spring Meeting, Regensburg, Germany
- 2015 Poster: Collective dynamics of active particles in complex environments, Nonequilibrium Collective Dynamics, Potsdam, Germany

Teaching Experience

ASSISTANCE IN TEACHING | POTSDAM INSTITUTE FOR CLIMATE IMPACT RESEARCH

- Summer 2019: **Ice dynamics in Greenland and Antarctica** with Prof. Ricarda Winkelmann
- Winter 2018/19: **Introduction to Climate Physics** with Prof. Ricarda Winkelmann
- Summer 2018: **Global Ocean Current Theory** with Prof. Stefan Rahmstorf

ASSISTANCE IN TEACHING | TECHNICAL UNIVERSITY OF BERLIN

- Summer 2017: **Quantum Mechanics** with Prof. Harald Engel
- Winter 2016/17: **Classical Mechanics** with Prof. Harald Engel
- Summer 2016: **Statistical Physics and Thermodynamics** with Prof. Holger Stark
- Winter 2015/16: **Electrodynamics** with Prof. Holger Stark
- Summer 2015: **Quantum Mechanics** with Prof. Harald Engel
- Winter 2014/15: **Classical Mechanics** with Prof. Harald Engel
- Summer 2014: **Mathematical Methods for Physicists** with Prof. Harald Engel
- Winter 2013/14: **Electrodynamics** with Prof. Sabine Klapp

STUDENT TEACHING ASSISTANT | TECHNICAL UNIVERSITY OF DORTMUND

- 2010 – 2011: Undergraduate Physics with Prof. Kai Schmidt

Memberships in Scientific Associations

- Since 2006: Membership in Deutsche Physikalische Gesellschaft (German Physical Society)
- Since 2018: Membership in European Geosciences Union
- Since 2019: Membership in American Geophysical Union
- Since 2017: Membership in Association of Polar Early Career Scientists, participated in group review of IPCC First Order Draft 6

Volunteer and Educational Work

- Since 2017: Several workshops with **Kinderuni Lichtenberg** and with **WWF 2°C Campus** on “Climate science deniers, how to disprove them”
- 2014-2017: **Schülerpaten e.V., Berlin**
Volunteering in private teaching of a socially underprivileged child with migration background
- Summer 2010: **Museum d’Histoire Naturelle**, Paris, France
2 months internship, participation in research project on biodiversity in urban spaces
- 2006-2008: **Lebenshilfe e.V. Bochum**
Enabling mentally disabled persons leisure activities