

CURRICULUM VITAE

Personal

Name: Tim Kruschke
Date of birth: 23 May 1979
Place of birth: Berlin, Germany
Citizenship: German
Family status: common-law marriage,
3 children (born Aug. 2014, May 2016, and Sep. 2018)

Professional activities

since 01/2019 Climate Researcher at *Sveriges meteorologiska & hydrologiska institut – Rossby Centre for Climate Research*, Norrköping, Sweden
Project *European Climate Prediction System (EUCP)*

01/2015–12/2018 Research Associate (*PostDoc*) at GEOMAR Helmholtz Centre for Ocean Research Kiel, Kiel, Germany
FB1 Ocean Circulation and Climate Dynamics, FE Marine Meteorology, WG Physics of the Atmosphere (Prof. Matthes)
Project *Quantification of Uncertainties of Solar Induced Climate Variability (SOLIC)*, part of BMBF-funded *ROMIC*-program

Parental leaves: 06 Mar – 05 Aug 2015 (50% part-time 06 May – 05 July), 08 Dec 2016 – 07 Aug 2017, and 28 Sep – 27 Nov 2018 (50% part-time 28 Oct – 27 Nov)

12/2011–12/2014 Research Associate & PhD candidate at Freie Universität Berlin (FUB), Institute of Meteorology (IfM), WG Climate diagnostics and meteorol. extreme events (Prof. Ulbrich)

11/2010–04/2012 PhD scholarship by *Munich RE, Münchener Rückversicherungs-Gesellschaft*

10/2007–09/2010 Student Assistant to WG Prof. Ulbrich at IfM-FUB, project work and assistant to the executive director of IfM-FUB

07/2007–10/2007 Internship at *WINDconsult GmbH*, Bargeshagen, Germany
WG Wind potential & energy return (add. internships in 06/2008 and 03/2009–04/2009)

Further academic activities

- Research proposal *Solar contribution to climate change on decadal to centennial timescales (SOLCHECK)* for the BMBF Research Program *Role of the Middle Atmosphere In Climate (ROMIC-II)*:
Significant contributions to scientific concept and experiment design (accepted by BMBF for funding)
- Member of the Climate Prediction WG of the EC-Earth consortium
- Reviewer for the *Formas* (Swedish government research council for sustainable development) Annual Open Call 2019
- Reviewer for *Bulletin of the American Meteorological Society*, *Journal of Applied Meteorology and Climatology*, *Earth System Dynamics*, ...
- Member of *European Geosciences Union*, *American Geophysical Union*, *Deutsche Meteorologische Gesellschaft*, and *Young Earth System Scientists*
- voluntary work as mentor within the *Arbeiterkind.de* network, supporting students without academic family background
- stud. member of the examination board at IfM-FUB (12/2006–09/2010)
- Student mentor (for freshmen) at IfM-FUB (04/2006–03/2009)

Skills

climate modeling	implementation of model developments (source code); design, set up, and performance of comprehensive experiments using global (chemistry) climate models
OS	Unix/Linux, MS Windows
further computational & visualization	shell-scripting (expert), <i>CDO</i> (expert), <i>MATLAB</i> (expert), <i>FORTRAN</i> (advanced), <i>NCL</i> (intermediate), <i>NCO</i> (intermediate), <i>GrADS</i> (intermediate), <i>Python</i> (elementary), <i>ArcGIS</i> (elementary)
Office	MS/Open Office, \LaTeX , <i>JabRef</i> , $\text{Bib}\TeX$
Languages	German (Mother Tongue), English (fluent in written and spoken), French (elementary), Swedish (elementary)

Teaching activities

- GEOMAR/CAU Kiel, SS2018 & SS2016: Lecturer *Radiation* exercise
- GEOMAR/CAU Kiel, WS2017/2018: Lecturer *Cloud Physics* exercise
- GEOMAR/CAU Kiel, WS2014/15: Co-Lecturer *Advanced Meteorological Seminar: Seamless predictions*
- IfM-FUB, WS2013/14: Lecturer (incl. concept and presentation) for topical block *Feature-Tracking* (lecture & exercise, 90min each) as part of module *Weather & climate diagnostics*
- IfM-FUB, WS2010/11-SS2014: Concept, supervision, and review of seminar papers within the M.Sc. modules *Weather & climate diagnostics* and *Meteorological extreme events*
- GEOMAR/CAU Kiel and IfM-FUB continuously since WS2010/11: Supervision of literature review presentations in various B.Sc.- and M.Sc.-seminars
- initiation, supervision, and review of several B.Sc. & M.Sc. theses at GEOMAR/CAU Kiel and IfM-FUB

Education

11/2010– 03/2015	PhD student Meteorology, <i>Freie Universität Berlin</i> , Berlin, Grade: <i>very good (magna cum laude)</i>
10/2008– 09/2010	M.Sc. student Meteorology, <i>Freie Universität Berlin</i> , Berlin, Grade: <i>very good (1,4)</i>
10/2005– 09/2008	B.Sc. student Meteorology, <i>Freie Universität Berlin</i> , Berlin, Grade: <i>good (2,1)</i>
04/2001– 09/2005	Diploma student Political Science, <i>University of Potsdam</i> , Potsdam
10/1999– 09/2000	Diploma student Transportation, <i>Technische Universität Berlin</i> , Berlin
05/1998	High school diploma (“Abitur”), <i>Lessing-Gymnasium</i> , Berlin

Scientific publications

Identifiers & statistics:

- ORCID: 0000-0002-1205-3754
- ResearcherID: F-2052-2014
- h-factor: 6 (CA Web of Science Core Collection; 13 June 2019)

Peer-reviewed journal contributions:

- F. Hansen, **T. Kruschke**, R.J. Greatbatch, A. Weisheimer 2019: Key factors for seasonal predictability of Northern hemisphere severe winter storms. *Geophys. Res. Lett.* 46(1), 365-373, DOI: 10.1029/2018GL079415
- Liersch, S., J. Tecklenburg, H.W. Rust, A. Dobler, M. Fischer, **T. Kruschke**, H. Koch, F. Hattermann 2018: Are we using the right fuel to drive hydrological models? A climate impact study in the Upper Blue Nile. *Hydrol. Earth Syst. Sci.* 22, 2163-2185, DOI: 10.5194/hess-22-2163-2018
- Walz, M.A., **T. Kruschke**, H.W. Rust, U. Ulbrich, G.C. Leckebusch 2017: Quantifying the extremity of windstorms for regions featuring infrequent events: Distribution-Independent Storm Severity Index. *Atmos. Sci. Lett.*, 18(7), 315-322, DOI: 10.1002/asl.758
- Matthes, K., B. Funke, M.E. Andersson, L. Barnard, J. Beer, P. Charbonneau, M.A. Clilverd, T. Dudok de Wit, M. Haberreiter, A. Hendry, C.H. Jackman, M. Kretschmar, **T. Kruschke**, M. Kunze, U. Langematz, D.R. Marsh, A. Maycock, S. Misios, C.J. Rodger, A.A. Scaife, A. Seppälä, M. Shangguan, M. Sinnhuber, K. Tourpali, I. Usoskin, M. van de Kamp, P.T. Verronen, S. Versick 2017: Solar forcing for CMIP6 (v3.2). *Geosci. Model Dev.*, 10, 2247-2303, DOI: 10.5194/gmd-10-2247-2017
- **Kruschke, T.**, H.W. Rust, C. Kadow, W.A. Müller, H. Pohlmann, G.C. Leckebusch, U. Ulbrich 2016: Probabilistic evaluation of decadal predictions of Northern Hemisphere winter storms. *Meteorol. Z.* 25(6), 721-738, DOI: 10.1127/metz/2015/0641
- Marotzke, J., W.A. Müller, F.S.E. Vamborg, P. Becker, U. Cubasch, H. Feldmann, F. Kaspar, C. Kottmeier, C. Marini, I. Polkova, K. Prömmel, H.W. Rust, D. Stammer, U. Ulbrich, C. Kadow, A. Köhl, J. Kröger, **T. Kruschke**, J.G. Pinto, H. Pohlmann, M. Reyers, M. Schröder, F. Sienz, C. Timmreck, M. Ziese 2016: MiKlip – a National Research Project on Decadal Climate Prediction. *Bull. Amer. Meteor. Soc.*, 97, 2379–2394, DOI: 10.1175/BAMS-D-15-00184.1
- Pardowitz, T., R. Osinski, **T. Kruschke**, U. Ulbrich 2016: An analysis of uncertainties and skill in forecasts of winter storm losses. *Nat. Hazards Earth Syst. Sci.* 16(11), 2391-2402, DOI:10.5194/nhess-16-2391-2016

- Befort, D.J., S. Wild, **T. Kruschke**, U. Ulbrich, G.C. Leckebusch 2016: Different Long-term Trends of Extra-tropical Cyclones and Windstorms in ERA-20C and NOAA-20CR Reanalyses. *Atmos. Sci. Lett.* 17: 586–595, DOI: 10.1002/asl.694
- Osinski, R., P. Lorenz, **T. Kruschke**, M. Voigt, U. Ulbrich, G.C. Leckebusch, E. Faust, T. Hofherr, D. Majewski 2016: An approach to build an event set of European windstorms based on ECMWF EPS. *Nat. Hazards Earth Syst. Sci.*, 16(1), 255-268, DOI: 10.5194/nhess-16-255-2016
- Rust, H.W., **T. Kruschke**, A. Dobler, M. Fischer, U. Ulbrich 2015: Discontinuous daily temperatures in the WATCH forcing data sets. *J. Hydrometeorol.* 16, 465–472. DOI: 10.1175/JHM-D-14-0123.1
- **Kruschke, T.**, H.W. Rust, C. Kadow, G.C. Leckebusch, U. Ulbrich 2014: Evaluating decadal predictions of northern hemispheric cyclone frequencies. *Tellus A* 66, 22830, DOI: 10.3402/tellusa.v66.22830

Theses:

- **Kruschke, T.** 2015: Winter wind storms: Identification, verification of decadal predictions, and regionalization. PhD thesis, Freie Universität Berlin, Dept. Earth Sciences, Institute of Meteorology, Berlin
- **Kruschke, T.** 2010: Decadal variability of frequency and intensity of Northern Hemisphere winter storms (In German: “Dekadische Variabilität der Anzahl und Intensität von Winterstürmen der extratropischen Nordhemisphäre”). M.Sc. thesis, Freie Universität Berlin, Dept. Earth Sciences, Institute of Meteorology, Berlin
- **Kruschke, T.** 2008: Relationships between meteorological characteristics of winter storms and resulting economic loss in Europe (In German: “Zusammenhang zwischen verschiedenen meteorologischen Eigenschaften von Winterstürmen und resultierenden Schäden in Europa”). B.Sc. thesis, Freie Universität Berlin, Dept. Earth Sciences, Institute of Meteorology, Berlin



Norrköping, June 13, 2019