

# CURRICULUM VITAE

## EXPERIENCE

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05/2020–07/2021	Wind resource assessor at wind farm developer UKA, Meissen, Germany ( <i>Wind potential assessment for wind farm sites</i> )
10/2018–03/2020	Research assistant at Leibniz Institute for Tropospheric Research, Leipzig, Germany ( <i>Implementation of a particle based cloud microphysics simulation module</i> )
10/2017–07/2018	Student teaching assistant at University of Freiburg, Institute of Physics, Germany (tutoring in <i>classical mechanics, thermodynamics and electrodynamics</i> )
07/2016–09/2017	Full-time intern (three months) and subsequent student research assistant at Fraunhofer Institute for Solar Energy Systems, Freiburg, Germany ( <i>Artificial Neural Networks for Use in Solar Thermal Energy</i> )
05/2015–01/2016	Student assistant at University Duisburg-Essen, Faculty of Physics, Germany ( <i>Simulation of thermoelectrical transport in semiconductors</i> )

## EDUCATION

(THESES AND CODES AVAILABLE ON <https://github.com/JanKBohrer>)

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09/2021–06/2022	Study program <b>Research Master in Fluid Dynamics</b> at the von Karman Institute for Fluid Dynamics, Belgium (Master project: <i>Development of a miniature Doppler lidar for wind velocity measurements</i> )
10/2016–11/2019	Study program M.Sc. Physics at University Freiburg, Germany <b>Degree M.Sc. Physics</b> (With honors; Grade 1.1 (excellent)) Master thesis at Leibniz Institute for Tropospheric Research, Leipzig in cooperation with University Freiburg, Institute of Physics (Prof. Schilling): “ <i>Modeling and simulation of atmospheric cloud droplets</i> ”
10/2011–09/2015	Study program B.Sc. Energy Science at University Duisburg-Essen, Germany (four-year Bachelor-plus program, incl. one year abroad) <b>Degree B.Sc. Energy Science</b> (With distinction; Grade 1.0 (very good)) Bachelor thesis at University Duisburg-Essen, Faculty of Physics (Prof. Wolf): “ <i>Molecular dynamics simulation of heat transfer at silicon grain boundaries</i> ”
08/2013–07/2014	ERASMUS study program (one year) at NTNU Trondheim, Norway
10/2010–09/2011	Study program Mechanical Engineering at Karlsruhe Institute for Technology, Germany
06/2009	Abitur (Grade 1.4) at Altes Gymnasium, Bremen, Germany

## **PUBLICATIONS, POSTERS AND PAPERS** (AVAILABLE ON <https://github.com/JanKBohrer>)

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Journal article	J.K. Bohrer, K. Schröer, L. Brendel and D.E. Wolf. ‘Thermal resistance of twist boundaries in silicon nanowires by nonequilibrium molecular dynamics’. <i>AIP Advances</i> <b>7</b> , 045105, 2017 ( <a href="https://doi.org/10.1063/1.4979982">https://doi.org/10.1063/1.4979982</a> )
Conference poster	J.K. Bohrer and O. Knoth. ‘Euler-Lagrangian cloud model with dynamic particle forces’. Workshop on Eulerian vs. Lagrangian methods for cloud microphysics, Cracow, Poland, April 15-17, 2019 ( <a href="http://ww2.ii.uj.edu.pl/~arabas/workshop_2019/">http://ww2.ii.uj.edu.pl/~arabas/workshop_2019/</a> )
Conference poster	J.K. Bohrer and O. Knoth. ‘Discrete particle methods for a scalable atmospheric dynamics solver’. Fourth Leibniz Mathematical Modeling and Simulation Network days, Kühlungsborn, Germany, March 20-22, 2019 ( <a href="https://www.wias-berlin.de/workshops/MMSDays19/">https://www.wias-berlin.de/workshops/MMSDays19/</a> )
Conference poster	W. Kramer, J.K. Bohrer and M. Bitterling. ‘Künstliche Neuronale Netzwerke für die Anwendung in der Solarthermie’. In Ostbayerisches Technologie-Transfer-Institut e.V. -OTTI-, Regensburg, 27. Symposium Thermische Solarenergie, Bad Staffelstein, 2017, pp. 36-37 (ANNSolar: <a href="https://www.ise.fraunhofer.de/en/research-projects/annsolar.html">https://www.ise.fraunhofer.de/en/research-projects/annsolar.html</a> )
Term paper	J.K. Bohrer. ‘Generation of Markov state models for the description of protein dynamics from molecular dynamics simulation data’. Term paper in Stochastic Dynamics, 2018. University Freiburg, Institute for Physics. ( <a href="https://github.com/JanKBohrer/Publications-Posters-and-Papers/blob/master/Bohrer_2018_Term_Paper_Markov_State_Models.pdf">https://github.com/JanKBohrer/Publications-Posters-and-Papers/blob/master/Bohrer_2018_Term_Paper_Markov_State_Models.pdf</a> )

## **ACADEMIC SERVICES**

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09/2021–06/2022	Research Master student representative at the von Karman Institute for Fluid Dynamics, Belgium
10/2011–09/2013	Student member of the Energy Science program examination board at University Duisburg-Essen, Germany

## **VOLUNTEERING AND CIVILIAN SERVICE**

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09/2017–07/2018	Voluntary work in the sustainability working group of non-profit association “Weitblick”, Freiburg, Germany
02/2016–05/2016	Voluntary work at energy self sufficient ecological project “Sunseed Desert Technology” in Spain and several ecological projects in Portugal
07/2009–03/2010	Civilian service at Workers’ Welfare Association (AWO), Bremen, Germany

## LANGUAGES

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German	native
English	fluent

## SOFTWARE AND PROGRAMMING SKILLS

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Python	Advanced
C++	Beginner
UNIX & LaTeX	Intermediate
OpenFOAM (CFD)	Beginner
Cadence Omnis (CFD)	Beginner
EMD windPRO	Intermediate
Windographer	Intermediate

## INTERESTS

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- Dynamics of complex systems, atmospheric physics and wind farm modeling
- Sustainability in technology and society
- Resilience of ecological and social systems
- Climate change mitigation
- Transition to renewable and decentralized energy generation
- Understanding and preservation of natural ecosystems
- Attending climate camps for skill sharing and knowledge transfer



Rhode-Saint-Genèse, 21.04.2022