

Michael Lindner

Institut für Theoretische Physik
Skr. EW 7-1 (PN 7-1)
Eugene-P.-Wigner-Gebäude
Technische Universität Berlin
Hardenbergstr. 36
10623 Berlin
michaellindner@pik-potsdam.de

ACADEMIC CAREER:

- October 2011 – April 2013 B.Sc. Mathematics with minor theoretical physics at FAU Erlangen
- April 2013 – May 2015 Change of University to HU Berlin
Bachelor thesis at Potsdam Institute for Climate Impact Research (PIK) on ‚Describing geophysical flow process with Lagrangian flow networks‘
- April 2015 –
September 2018 M.Sc. Mathematics at HU Berlin
- September 2018 Masters thesis at PIK on ‚Stochastic basins of attraction‘
- Since October 2019 Doctoral researcher at PIK / TU Berlin
‚Exploring Complex Network Dynamics with Machine Learning‘

PUBLICATIONS:

- Lindner, Michael, and Reik V. Donner. "Spatio-temporal organization of dynamics in a two-dimensional periodically driven vortex flow: A Lagrangian flow network perspective." *Chaos: An Interdisciplinary Journal of Nonlinear Science* 27.3 (2017): 035806.
- Donner, Reik V., and Michael Lindner and Liubov Tupikina and Nora Molkenhain. "Characterizing flows by complex network methods." *A Mathematical Modeling Approach from Nonlinear Dynamics to Complex Systems*. Springer, Cham, 2019. 197-226.
- Lindner, Michael, and Frank Hellmann. "Stochastic basins of attraction and generalized committor functions." *Physical Review E* 100.2 (2019): 022124.
- Lindner, Michael und Schuster, Antonia. "10 Fakten zum Klimawandel, die man sich merken kann" *ZEIT Online* (2018).
- Lindner, Michael, et. al. "NetworkDynamics.jl – Composing and simulating complex networks in Julia". *ArXiv (preprint)* (2020).

CONFERENCES

Conflow 2015: Complex network perspectives on flow systems. Contributed talk on *‘Lagrangian transport networks for simple geophysical flow models.’* Supporting staff.

PNLD 2016: Perspectives in Nonlinear Dynamics. Contributed talk on *‘Spatio-temporal organization of dynamics in a two-dimensional periodically driven vortex flow: a Lagrangian flow network perspective.’*

Degrowth Summer School 2018, ZEIT-Festival der jungen Visionäre 2018 und re:publica19: Workshop (2h) on *‘Climate change, my friends and I: How our social environment influences our carbon footprint’*

JuliaCon 2020: Contributed talk on *NetworkDynamics.jl – Modeling dynamical systems on networks* (<https://youtu.be/GrmnbDYr6mM>).