

Key interests

Themes Computational social science, Complex systems, Climate crisis, Science communication

Methods Mathematical modelling, Agent-based simulation, Data science, Visualisation

Academic carrer

Postdoc
2024 –
at [Complexity Science Hub](#)
project: [Collective Adaptation](#)
main collaborators: [Mirta Galesic](#), [Henrik Olsson](#)

Ph.D.
2024
in **(Computational) Sociology**
at [Leibniz Centre for Tropical Marine Research \(ZMT\) Bremen](#) and [Constructor University](#)
on ‘[The complex effects of distorted social perceptions on opinions about climate change](#)’
supervisor: [Agostino Merico](#);
main collaborators: [Paul E. Smaldino](#), [Marijn A. Keijzer](#), [Deyshawn Moser](#)

Master (M.Sc.)
2020
in **Computer Simulations in Science and Engineering (COSSE)**
at [TU Berlin](#) and [KTH Stockholm](#) (double-degree)
final grade: 1.1 (‘very good’)
thesis in socio-economic modelling: ‘[A spatially explicit agent-based model of human-resource interaction on Easter Island](#)’ at [ZMT Bremen](#) (supervisor: [Agostino Merico](#))

Master (M.Sc.)
2018
in **(Climate) Physics**
at [University of Potsdam](#) and [Potsdam Institute for Climate Impact Research \(PIK\)](#)
final grade: 1.1 (‘very good’) with distinction
thesis in climate modelling: ‘[Estimating global warming from anthropogenic heat emissions – conceptual and numerical modelling approaches](#)’ (supervisors: [Georg Feulner](#) & [Maria A. Martin](#))

Bachelor (B.Sc.)
2016
in **Physics**
at [FAU Erlangen-Nuremberg](#)
final grade: 1.2 (‘very good’) with distinction
thesis on simulating the detection of astro-particles (supervisor: [Uli Katz](#))

Scientific contributions

Publications → *See attached list of publications and ongoing work* ←

Conferences
contributed talk at [SSC 2024](#) in [Krakow, Poland](#)
[poster](#) at [SSC 2023](#) in [Glasgow, UK](#)
[contributed talk](#) at [ODCD 2023](#) in [Bremen, Germany](#)
[contributed talk](#) at [CCS 2022](#) in [Palma, Spain](#)
[contributed talk](#) at [SSC 2022](#) in [Milan, Italy](#)
[poster](#) at [EGU General Assembly 2019](#) in [Vienna, Austria](#)
[poster](#) at [DPG Frühjahrstagung 2019 \(Environmental Physics Section\)](#) in [Munich, Germany](#)

Teaching (at university level)

Co-supervisor
for a master thesis on modelling individual decision-making in social contexts at [ZMT Bremen](#) (2023)
for a master thesis on modelling the coral-algae symbiosis under stress at [ZMT Bremen](#) (2021)

Lecturer	designing lectures, exercises, and student projects for the course ‘Data Science Tools in python’ at Constructor University in collaboration with Jan Lorenz (2023)
Guest lecturer	on an ‘Agent-based model of the Covid-19 pandemic’ as part of ‘Modelling and analysis of complex systems’ lead by Agostino Merico at Constructor University (2020, 2022, 2023)
Teaching assistant	in ‘Modelling and analysis of complex systems’ lead by Agostino Merico at Constructor University (2020, 2022) at a winter school on ‘Mathematical modelling of ecological and socioeconomic systems’ at the African Institute of Mathematical Sciences (AIMS) in Senegal (2020, 2022) for the course ‘Theoretical physics 2: Electrodynamics’ by Florian Marquardt at FAU (2015 – 2016)

Further research experience and education

Research stays	at UC Merced in the cognitive science department (2023, three months), including a visit to the Santa Fe Institute at Imperial College London and Grantham Institute (2016, three months) including the preparation of a policy briefing paper on ‘ Novel policy tools to assess the environmental impacts of air pollutants ’ (supervisors: Apostolos Voulgarakis and Alyssa Gilbert)
Science communication	radio interview on global warming through anthropogenic heat emissions (2024) ‘ Wissenschaft persönlich ’—interview (2023) ‘ Science goes PUBLIC ’—a series of talks by scientists for the general public in pubs in Bremen (2023) ‘ Book-a-scientist ’—speed-dating with scientists organised by the Leibniz Association (2020–2022)
Summer schools	‘BIGSSS-CSS Summer School on democratic debate’ at Constructor University (2023) ‘BIGSSS-CSS Summer School on social cohesion’ at University of Groningen (2022) ‘PIP Summer school on machine learning’ at University of Bremen (2018)
Studying abroad	Erasmus exchange at Imperial College London (2014–2015) thesis project on simulating material properties of solar cells (supervisor: N.J. Ekins-Daukes)

Other relevant skills and interests

Languages	German (native), English (fluent), Swedish, Arabic (all beginner)
Programming	Python (advanced), R, NetLogo, Julia (all beginner)
Politics and student organisations	voluntary work in university institutions, including the organisation of political events and information campaigns with the ‘Fridays for Future’ student group (2019), the green university group (‘GHG Erlangen’, 2012–2017), or the physics student association (‘FSI’, 2012–2017) member of the student councils on faculty and university level (2013–2014)
Teaching at high-school level	conducting one-week intensive courses to prepare high-school students for their mathematics A-level exams (‘abiturma’, 2018–2024)

References

[Agostino Merico](#)

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[Paul E. Smaldino](#)

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affiliations: (1) Department of Cognitive and Information Sciences, University of California Merced, Merced, CA, USA; (2) Santa Fe Institute

[Marijn A. Keijzer](#)

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affiliation: Institute for Advanced Study in Toulouse, Toulouse School of Economics, Toulouse, France