

Dr. Jana Lasser

Curriculum Vitae

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Education

- 2015–2018 **Dr. rer. nat. Physics**, *Georg-August-University and Göttingen Graduate School for Neurosciences, Biophysics, and Molecular Biosciences (GGNB)*, Göttingen, Germany.
Advisor: Prof. [Lucas Goehring](#)
Thesis: [Geophysical pattern formation of salt playa](#)
Grade: magna cum laude
- 2013–2015 **M.Sc. Physics**, *Georg-August-University and Max Planck Institute for Dynamics and Self-Organization (MPIDS)*, Göttingen, Germany.
Advisor: Prof. [Eleni Katifori](#)
Thesis: [Network analysis and hidden phenotypes in large biological datasets](#)
Grade: 1.1
- 2009–2013 **B.Sc. Physics**, *Georg-August-University and MPIDS*, Göttingen, Germany.
Advisor: Prof. [Eleni Katifori](#)
Thesis: [Computational analysis framework for vascular network images](#)
Grade 2.4
- 2009 **Matura**, *Realgymnasium Dreierschützengasse*, Graz, Austria.
Grade: 1.0

Additional qualifications

- 2022 **Didactics module "basic"**, *Teaching Academy TU Graz*, Qualification for independent teaching at higher education institutions.
40 hours
- 2021 **Summer School**, *Oxford Machine Learning Summer School*, Latest developments in computer vision, graph ML, natural language processing and ML for health applications.
80 hours
- 2021 **Summer School**, *Summer Institutes in Computational Social Science (SICSS) in Helsinki*, Network analysis, simulations and complex systems, validity and reliability of CSS, research ethics for CSS.
80 hours
- 2019 **Leadership training**, *German Physical Society program "Leading for Tomorrow"*, core competencies of leadership and management in industrial and higher education contexts.
56 hours
- 2018 **Project management**, *GGNB*, Fundamental and advanced competencies in agile project management.
40 hours

Employment

- since Apr 2021 **Postdoctoral researcher (Feb. 2022 – Jan 2024 Marie Curie Fellow)**, *TU Graz, Institute for Interactive Systems and Data Science*, modeling and big data analytics focused on applications in computational social science and digital health.
Graz, Austria
- Jan 2020 – Mar 2021 **Postdoctoral researcher**, *Complexity Science Hub (CSH), Medical University Vienna*, modeling and big data analytics focused on interaction networks in medicine and social media.
Vienna, Austria
- 2019 **Postdoctoral researcher**, *MPIDS, Department of Complex Fluids and Georg-August-University, Centre for Statistics*, numerical modeling, data analysis and development of a Data Science curriculum.
Göttingen, Germany

- 2015–2018 **Doctoral researcher**, [MPIDS](#), *Department of Complex Fluids, Goehring lab*, field studies, analogue experiments, numerical simulations and modeling.
Göttingen, Germany
- 2013–2015 **Scientific assistant**, [MPIDS](#), development of “[NET](#)”, a framework for the automated extraction of network data from high resolution images.
Göttingen, Germany

Grants, fellowships and prizes

- 2021 **Fellowship** "Staying at home - the interplay between behavioural synchronisation and physical distancing in prosocial behaviour", program Marie Curie Action – individual fellowship, funder: *European Commission*. **174 167 €**
- 2021 **Grant** "Joint online course" to implement a partner location of the "Summer Institutes for Computational Social Science" (SICSS) in collaboration with RWTH Aachen, funder: *Graz University of Technology*, role: principal investigator. **15 000 €**
- 2020–2024 **Grant** "Researcher mental health observatory", *COST action no. CA19117*, funder: *European Commission*, role: secondary proposer **472 000 €**
- 2019–2020 **Fellowship** "[Freies Wissen](#)" to realise the project "executable papers", funder: *Wikimedia Foundation*. **10 000 €**
- 2019 **Grant** "Daten Lesen Lernen – connecting 4 Data Literacy", program "Innovation Plus", funder: *Lower Saxony Ministry for Science and Culture*, role: proposer, together with Thomas Kneib, Benjamin Säfken, Alexander Silbersdorff and Wolfgang Radenbach. **48 630 €**
- 2018 **Fellowship** to attend the Lindau Nobel Laureate meeting, funder: *Max Planck Society*.
- 2018–2021 **Prize** to realise the project "[Daten Lesen Lernen](#)" at the University of Göttingen, funder: *Stifterverband & Heinz-Nixdorf Foundation*, role: proposer, together with Thomas Kneib, Benjamin Säfken, Alexander Silbersdorff, Wolfgang Radenbach and Debsankha Manik. **250 000 €**
- 2017–2018 **Grant** to realise a field study on geophysical pattern formation in salt deserts in California, funder: *DAAD*, role: principal investigator. **10 000 €**
- 2015–2017 **Fellowship** to realise my dissertation project on geophysical pattern formation in salt playa, funder: *GGNB*. **40 000 €**
- 2015 **Prize** *Dr. Berliner - Dr. Ungewitter prize* for an outstanding master thesis *University of Göttingen*.
- 2014, 2017 **Fellowship** to attend the *European Forum Alpbach*, funder: *Club Alpbach Styria*.

University teaching

- 2022 **Computational Models of Social Systems**, *Computational models for social systems: game of life, agent-based models, network models, advanced programming in python*. For details see [lecture materials](#), target group: students of the Computational Social Systems master, TU Graz, ECTS: 4, lecture with exercises with ≈ 70 students.
Role: lecturer
- 2021 **Foundations of Computational Social Systems**, *Introduction to Computational Social Science (CSS), basics of programming (R), data acquisition and handling, visualization and statistics, network analysis, ethical aspects of CSS*. For details see [lecture materials](#), target group: students of the Computational Social Systems master, TU Graz, ECTS: 4, lecture with exercises with ≈ 70 students.
Role: lecturer
- 2019 **Daten Lesen Lernen**, *Basics of programming (Python), data handling, visualization and statistics*. For details see [lecture materials](#), target group: bachelor students with all backgrounds, University of Göttingen ECTS: 6, lecture with exercises with ≈ 30 students.
Role: lecturer

- 2017–2018 **Introduction to Data Science**, *Data handling, visualization, statistics and basics of machine learning (clustering, neural networks)*. For details see [lecture materials](#), target group: physics master students, biology, neuroscience and physics PhD students, University of Göttingen, ECTS: 4, lecture with exercises with ≈ 40 students.
Role: lecturer
- 2017 **Pattern recognition and machine learning**, *Basics of modern machine learning techniques, including (logistic) regression, clustering, SVMs and neural nets*, target group: physics master students, University of Göttingen, ECTS: 6, lecture with exercises with ≈ 50 students.
Role: teaching assistant
- 2015 **Introduction to interactive network analysis in Python**, *Handling and analysis of networks using NetworkX and graph-tool*, target group: biology, neuroscience and physics PhD students, University of Göttingen, ECTS: 2, lecture with exercises with ≈ 20 students.
Role: lecturer
- 2015 **Experimental physics for non-physicists**, *Basic concepts from physics including mechanics, fluid dynamics, thermodynamics and electrostatics*, target group: medicine undergraduates, University of Göttingen, ECTS: 6, lecture with exercises with ≈ 30 students in my tutorial.
Role: teaching assistant

Other teaching activities

- 2021 **Digitalization in Research**, *Digital methods in research, including literature management and search, good coding practices, best practices for open and transparent research and science communication using social media platforms*. For details see [lecture materials](#), target group: PhD students and PostDocs, Ludwig Boltzmann Society, 2 day block course with 15 students.
Role: lecturer
- 2019 **Live hack session "Does Donald Trump have the best words?"**, *Live demonstration of a data analysis process using Twitter data of Donald Trump and Russian trolls*. For details see [lecture materials](#), target group: bachelor students with all backgrounds, University of Göttingen, 3 hours.
Role: lecturer
- 2016 **Programming from women for women**, *Introduction to programming for students without any prior programming knowledge*. For details see [lecture materials](#), target group: geology and geography bachelor and master students, University of Göttingen, 2 day block course.
Role: lecturer

Student supervision

- 2021–present **Master's thesis**, *Misinformation detection with multimodal data*, student: Valentin Rupp.
Role: daily supervisor, TU Vienna & Complexity Science Hub Vienna
- 2021–present **Intern**, *A data driven approach to find the most pressing questions for young mothers*, student: Magdalena Fritz.
Role: daily supervisor, TU Vienna & Complexity Science Hub Vienna
- 2021–2022 **Intern**, *#IchBinHanna*, student: Ahmadou Wagne.
Role: daily supervisor, TU Vienna & Complexity Science Hub Vienna
- 2021 **Intern**, *#IchBinHanna*, student: Elen Le Foll.
Role: daily supervisor, Osnabrück University
- 2017 **Master's thesis**, *Numerical simulation of pattern formation in salt-paya*, student: Marcel Ernst.
Role: daily supervisor, University of Göttingen & MPIDS
- 2016 **Bachelor's thesis**, *Porous Media Flows in 3D Environments*, student: Birte Thiede.
Role: daily supervisor, University of Göttingen & MPIDS

Service

- 2022 **Member selection committee**, [CZS Wildcard](#), funding programme by the Carl Zeiss foundation to encourage unconventional ideas.
- 2021–present **Member Studienkommission**, for the newly implemented master's study [Computational Social Systems](#) at Graz University of Technology.
- 2021–present **Founding member**, [Network against Abuse of Power in Science \(MaWi\)](#).
- 2020–present **Management Committee, leader survey working group**, COST action "[Researcher Mental Health](#)".
- 2019–present **Advisory Board member N²**, [network of German non-university PhD representations](#).
- 2019–present **Juror**, International Young Physicists' [Tournament](#).
- 2016–present **Founding member**, [Göttingen HackyHour](#) to teach Open Science practices.
- 2018–2019 **Task force "working atmosphere"**, member, *assessment of the working atmosphere pertaining to harassment and mobbing, design and conduction of a survey within the Max Planck Society and formulation of recommendations*.
- 2018 **PhDnet Spokesperson**, Head of the Max Planck [PhDnet](#), the representation of the over 5000 doctoral researchers of the Max Planck Society, *coordination of working groups, strategic planning of PhDnet activities, representative tasks and outreach*.
- 2017 **Organising committee**, *Third infinity*, international conference on the physics of complex systems. Göttingen, Germany
- 2017 **PhDnet Deputy Spokesperson & Section Representative**, Representation of the doctoral researchers in the Chemistry, Physics and Technology section of the [Max Planck Society](#), *focus on working conditions, equal opportunities and Open Science*.
- 2015–2017 **Elected PhD representative**, Representation of the doctoral researchers within the [graduate school](#) and the [MPIDS](#).

Memberships and affiliations

- since 2021 **Associate faculty**, [Complexity Science Hub Vienna](#).
- since 2009 **Member**, [German Physical Society](#).

Selected media reactions

- *Warum der Blick in die Zukunft so schwierig ist*, 2022. [derstandard.at](#)
- *Omikron erschwert Pandemiebekämpfung an Schulen*, 2022. [derstandard.at](#)
- *Richtiges Testen kann Corona-Ausbrüche in Altersheimen unterbinden*, 2021. [derstandard.at](#)
- *Gut gemachte Apps können bei der Krisenbewältigung helfen*, Kurier, 2020. [kurier.at](#)
- *Daten für Literaten*, Frankfurter Allgemeine Zeitung, 2020. [uhtenwoldt.de](#)
- *Making a difference*, Physics World, 2019. [physicsworld.com](#)
- *Q&A: Doctoral students at Germany's Max Planck Society say recent troubles highlight need for change*, Science Magazine, 2018. [sciencemag.org](#)

Art and Science

- *Interview: "Zur Praxis der Modellierung" and input for the development of the interactive live action game "Leben unter der Kurve"*, 2021. [TECHNOPOLITICS](#)
- *Interview and input for the development of the theatre play: STREAMS. Catching Caches*, 2021. [Julia Novacek & Artemiy Shokin](#)

Contributed talks

- *Agent-based simulation to assess the effectiveness of COVID-19 prevention measures in schools.*
[NetSci 2021](#)
- *Agent-based simulation to assess the effectiveness of COVID-19 prevention measures in schools.*
[IC2S2 2021](#)
- *Open science, but correctly! Interacting with new forms of openness in research and society.*
[Metascience 2021](#)
- *Stability and dynamics of convection in dry salt lakes.*
[DPG spring meeting 2019](#)

Gender mainstreaming activities

- 2019 **Founding member**, [MPQueer](#) - a network for queer scientists in the Max Planck Society, Max Planck [PhDnet](#) and [Max Planck Society](#) General Administration.
- 2018 **Founding member**, working group on parenting in academia, Max Planck [PhDnet](#) and [Max Planck Society](#) General Administration.
- 2017 **Head**, working Group "Equal Opportunities", Max Planck [PhDnet](#).
- 2016 **Lecturer**, "Programming from women for women", [Georg August University](#).

Language skills

- German **Native**.
- English **Fluent**, working language.
- French **Basic**, school education.
- Spanish **Basic**, school education and student exchange.

Computer skills

- Expert Python (NumPy, Pandas, SciPy, NetworkX, transformers, scikit-learn, PyTorch, nltk)
- User R, \LaTeX , CUDA, C, Git, Linux, server administration
- Basic C++, Java, MATLAB, C#, Julia, LabView