

Dr. Jana Lasser

Curriculum Vitae

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Career summary

- May 2024–present **Professor for Data Analysis, *IDEa_Lab of the University of Graz***, Leading the research group "Complex Social & Computational Systems" (CS)².
Graz, Austria
- WiSe 2023/24 **Professor for Computational Social Sciences and Humanities (interim, W3), *RWTH Aachen***.
Aachen, Germany
- 2021–2023 **Marie Curie Fellow, *TU Graz, Institute for Interactive Systems and Data Science, Computational Social Science Lab***, research focus: Machine learning, natural language processing, statistical modelling and computational modelling to understand complex social systems with applications in social science, social network analysis, epidemiology, psychology and political science.
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

Education

- 2023 **Cumulative habilitation in "Applied Computer Science"**, *under review, expected award date: October 2023, TU Graz*.
Thesis: Computational Modelling of Complex Social Systems
- 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

- 2023 **Summer School**, *Complex Systems Summer School*, Santa Fe Institute, research of complex behavior in mathematical, physical, living, and social systems.
160 hours
- since 2022 **Leadership training**, *Leading Women TU Graz*, advanced leadership competencies in academic contexts.
- 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

University teaching

- 2022–23 **Research Seminar for Computational Social Systems in the specialisation "Societies, Technologies and Social Research"**, *supervision of research projects*, target group: master students of the Computational Social Systems master, TU Graz, ECTS: 6, 8 students.
Role: lecturer
- 2022 **Computational Social Science Summer School (SICSS)**, *Two-week summer school with lectures, group problem sets, and participant-led research projects to give an introduction to the field of Computational Social Science*, for details see [lecture materials](#), target group: social scientists and computer scientists, master-level and above, TU Graz & RWTH Aachen, ECTS: 4, 40 students.
Role: lecturer
- 2021–22 **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
- 2021–22 **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
- 2021–22 **Digital Transformation 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 days.
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
- 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

- 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 \approx 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 \approx 50 students.
Role: teaching assistant
- 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
- 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 \approx 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 \approx 30 students in my tutorial.
Role: teaching assistant

Student supervision

- 2021–present **PhD thesis**, *A computational taxonomy of problem coping strategies*, student: Alina Herderich.
Role: co-supervisor, TU Graz
- 2022–present **PhD thesis**, *Emotional Misinformation*, student: Jula Luehring.
Role: co-supervisor, Uni Vienna
- 2023 **Master's thesis**, *Analysing the structure of conspiracy theories in Telegram chats*, student: Mathias Angermaier.
Role: supervisor, TU Graz & Uni Graz
- 2023 **Master's thesis**, *How should patient-allocation policies and staff allocation strategies be combined to maximise patient survival in a mass-casualty incident?*, student: Florentina Hager.
Role: co-supervisor, TU Graz & Uni Graz
- 2023 **Master's thesis**, *Combining surveys and course enrolment data to analyse success factors for university students*, student: Amani Brandweiner.
Role: co-supervisor, TU Graz & Uni Graz
- 2022–present **Master's thesis**, *Applying network analysis and machine learning approaches to understand the dynamics of political polarization in real-time*, student: Elisabeth Höldrich.
Role: supervisor, TU Graz
- 2021–2022 **Master's thesis**, *Misinformation detection with multimodal data*, student: Valentin Rupp.
Role: supervisor, TU Vienna & Complexity Science Hub Vienna
- 2021–2022 **Intern**, *A data driven approach to find the most pressing questions for young mothers*, student: Magdalena Fritz.
Role: supervisor, TU Vienna & Complexity Science Hub Vienna
- 2021–2022 **Intern**, *Exploring the #IchBinHanna movement through digital traces on Twitter*, student: Ahmadou Wagne.
Role: supervisor, TU Vienna & Complexity Science Hub Vienna
- 2021 **Intern**, *Exploring the #IchBinHanna movement through digital traces on Twitter*, student: Elen Le Foll.
Role: supervisor, Osnabrück University
- 2017 **Master's thesis**, *Numerical simulation of pattern formation in salt-paya*, student: Marcel Ernst.
Role: co-supervisor, University of Göttingen & MPIDS
- 2016 **Bachelor's thesis**, *Porous Media Flows in 3D Environments*, student: Birte Thiede.
Role: co-supervisor, University of Göttingen & MPIDS

Service

- 2022–present **Senate**, [TU Graz](#), member.

- 2022–present **Ethics commission**, *TU Graz*, member.
- 2022–present **Data protection board**, *TU Graz*, member.
- 2022–present **Young Science Ambassador**, *OeAD*.
- 2022–present **Selection committee**, *CZS Wildcard*, *Carl Zeiss foundation*, member.
- 2021–present **Studienkommission**, *Master's programme Computational Social Systems* at *TU Graz*, vice chair.
- 2021–present **Network against Abuse of Power in Science**, (*MaWi*), board member.
- 2020–present **COST action**, "*Researcher Mental Health*", management committee, leader survey working group.
- 2019–present **N²**, *network of German non-university PhD representations*, advisory board member.
- 2019–present **International Young Physicists' Tournament**, (*IYPT*), juror.
- 2018 **Max Planck PhDnet**, *representation of doctoral researchers of the Max Planck Society*, president.
- 2015–2017 **Max Planck PhDnet**, *representation of doctoral researchers of the Max Planck Society*, institute and section representative.

Reviewing activity

- **Journals:** Nature Communications, EPJ Data Science, Journal of Social Computing, Cliodynamics, Epidemics, Journal of Science Communication
- **Conferences:** The Web Conference 2021, Open Science Conference 2021, NetSci 2023

Conference organisation

- 2021 **IC2S2**, *Zurich, Switzerland*, discussion panel organisation.
- 2017 **Third Infinity**, *Göttingen, Germany*, responsible for budget and parts of the programme.

Gender mainstreaming activities

- 2022 **"Mind the Gap" diversity award**, *TU Graz*.
- 2018 **Foundation of the working group on parenting in academia**, *Max Planck PhDnet in collaboration with the Max Planck General Administration*.
- 2017 **Head of the Working Group "Equal Opportunities"**, *Max Planck PhDnet*.
- 2016 **Lecturer in "Programming from women for women"**, *University of Göttingen*.

Selected media reactions

- *Conspiracy theories on the digital circuit* (German translation), Scilog – The Science Magazine, 2023.
- *Sarkasmus & Co: Strategien, um digitalen Hass zu bändigen*, Kleine Zeitung, 2023.
- *Ausgezwitchert*, Falter, 2023.
- *Why Death Valley Is Full of Polygons*, Physics, 2023.
- *Schweigen ist Gold? Von Wegen!*, Die Presse, 2023.
- *Republicans are increasingly sharing misinformation, research finds*, The Washington Post – Monkey Cage, 2022.
- *US politicians tweet far more misinformation than those in the UK and Germany – new research*, The Conversation, 2022.
- *Stresstest zur Ärzteversorgung zeigt große regionale Unterschiede*, Die Presse, 2022.
- *Warum der Blick in die Zukunft so schwierig ist*, Der Standard, 2022.
- *Von Kuh-Daten und Menschen*, Ö1, 2022.
- *Omikron erschwert Pandemiebekämpfung an Schulen*, Der Standard, 2022.
- *Zur Praxis der Modellierung*, Technopolitics, 2021.
- *Richtiges Testen kann Corona-Ausbrüche in Altersheimen unterbinden [The right testing strategy can prevent Corona outbreaks in nursing homes]*, Der Standard, 2021.
- *Gut gemachte Apps können bei der Krisenbewältigung helfen*, Kurier 2020.
- *Making a difference*, Physics World, 2019.

- *Facetten der Macht: Abhängigkeiten und Machtstrukturen in der Wissenschaft*, Deutschlandfunk, 2020.
- *Göttinger Studierende lernen das Auswerten von Datensätzen*, Göttinger Tageblatt, 2019.
- *Q&A: Doctoral students at Germany's Max Planck Society say recent troubles highlight need for change*, Science Magazine, 2018

Memberships and affiliations

- since 2021 **Associate faculty**, *Complexity Science Hub Vienna*.
 since 2009 **Member**, *German Physical Society*.

Shortlisted positions

- 2022 **Assistant Professor of Complexity Science for Societal Good**, *TU Vienna*.

Prizes

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| 2023 | "Netidee Science Prize" for the project "Orientation in Conspiracy (ORION)", funding agency: <i>FWF & Internetstiftung grant No. P 37280-N</i> . | 413 507 € |
| 2022 | "Mind the Gap" diversity award from <i>TU Graz</i> , for the project "(Wen) regt Frauenfußball auf?", together with Max Pellert. | 450 € |
| 2018–2021 | Award by the German <i>Stifterverband & Heinz-Nixdorf Foundation</i> to realise the project " <i>Daten Lesen Lernen</i> " at the University of Göttingen, together with Thomas Kneib, Benjamin Säfken, Alexander Silbersdorff, Wolfgang Radenbach and Debsankha Manik. | 250 000 € |
| 2015 | <i>Dr. Berliner - Dr. Ungewitter prize</i> for an outstanding master thesis, <i>University of Göttingen</i> . | |

Grants and fellowships

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| 2021 | Fellowship "Staying at home - the interplay between behavioural synchronisation and physical distancing in prosocial behaviour", individual fellowship, funding agency: <i>European Commission, Marie Skłodowska-Curie grant No. 101026507</i> . | 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, funding agency: <i>TU Graz</i> , role: principal investigator. | 15 000 € |
| 2020–2024 | Grant "Researcher mental health observatory", funding agency: <i>European Commission</i> , COST action no. <i>CA19117</i> , role: secondary proposer. | 472 000 € |
| 2019–2020 | Fellowship " <i>Freies Wissen</i> " to realise the project "executable papers", funding agency: <i>Wikimedia Foundation</i> . | 10 000 € |
| 2019 | Grant "Daten Lesen Lernen – connecting 4 Data Literacy", program "Innovation Plus", funding agency: <i>Lower Saxony Ministry for Science and Culture</i> , role: proposer, together with Thomas Kneib, Benjamin Säfken, Alexander Silbersdorff and Wolfgang Radenbach. | 48 630 € |
| 2018 | Fellowship to attend the Lindau Nobel Laureate meeting, funding agency: <i>Max Planck Society</i> . | |
| 2017–2018 | Grant to realise a field study on geophysical pattern formation in salt deserts in California, funding agency: <i>DAAD</i> , role: principal investigator. | 10 000 € |
| 2015–2017 | Fellowship to realise my dissertation project on geophysical pattern formation in salt playa, funding agency: <i>GGNB</i> . | 40 000 € |
| 2014, 2017 | Fellowship to attend the <i>European Forum Alpbach</i> , funding agency: <i>Club Alpbach Styria</i> . | |

Language skills

German **Native.**

English **Fluent**, *working language.*

French **Basic**, *school education.*

Spanish **Basic**, *school education and student exchange.*