

# 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 Goerhing  
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: *Framework for the computational analysis of vascular networks*  
Grade 2.4
- 2009 **Matura**, *Realgymnasium Dreierschützengasse*, Graz, Austria.  
Grade: 1.0

### Additional qualifications

- 2019 **Leadership training**, *German Physical Society (DPG)*, Berlin, Germany.  
Program: *Leading for tomorrow*
- 2018 **Project management**, *GGNB*, Göttingen, Germany.  
Fundamentals and advanced project management

### Employment

- 2020 – present **Postdoctoral researcher**, *Complexity Science Hub (CSH), Mécidial 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, Center 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
- 2016 **Independent contractor**, *Georg-August-University*, development and conduction of a Python programming course for women for women.  
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

### Service

- 2020–present **Co-proposer and MC national member**, *COST action "Researcher Mental Health"*.  
Vienna, Austria

*Complexity Science Hub Vienna, Josefstädterstrasse 39 – 1080 Vienna – Austria*

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- 2018–present **Board member, Advisory Board member N<sup>2</sup>**, *network of German non-university PhD representations*.  
Berlin, Germany
- 2016–2019 **Voluntary engagement Open Science**, *founding of and participation in the Göttingen HackyHour and activities to teach Open Science practices*, focus on OERs and Open Source programming.  
Göttingen, Germany
- 2018–2019 **Member task force "working atmosphere"**, *Max Planck Society*, assessment of the working atmosphere including harassment and mobbing and formulation of recommendations.  
Munich, Germany
- 2018 **PhDnet Spokesperson**, *Head of the Max Planck PhDnet*, coordination of working groups, strategic planning of PhDnet activities, representative tasks and outreach, Max Planck Society.  
Munich, Germany
- 2017 **PhDnet Deputy Spokesperson & Section Representative**, *Representation of the doctoral researchers in the Chemistry, Physics and Technology section within PhDnet*, focus on working conditions, equal opportunities and Open Science, Max Planck Society.  
Munich, Germany
- 2015–2017 **Elected PhD representative**, *Representation of the research institute's doctoral researchers within the graduate school and the PhDnet*, GGNB and MPIDS.  
Göttingen, Germany

## Main areas of research

**Computational social science**, *Analysis of human behaviour through digital traces: dynamics of emotion, prosociality and communication in times of crisis.*

**Complex systems**, *Analysis and modelling of emergent phenomena in nonlinear dynamical systems: application to pattern formation in nature and disease risks in living things.*

**Sociophysics**, *Application of machine learning tools and Big Data to understand emerging patterns in complex social and human made systems.*

## Selected media reactions

- *Gut gemachte Apps können bei der Krisenbewältigung helfen*, Kurier, 2020.  
[kurier.at](http://kurier.at)
- *Daten für Literaten*, Frankfurter Allgemeine Zeitung, 2020.  
[uhtenwoldt.de](http://uhtenwoldt.de)
- *Making a difference*, Physics World, 2019.  
[physicsworld.com](http://physicsworld.com)
- *Facetten der Macht: Abhängigkeiten und Machtstrukturen in der Wissenschaft*, Deutschlandfunk, 2020.  
[deutschlandfunk.de](http://deutschlandfunk.de)
- *Göttinger Studierende lernen das Auswerten von Datensätzen*, Göttinger Tageblatt, 2019.  
[goettinger-tageblatt.de](http://goettinger-tageblatt.de)
- *Q&A: Doctoral students at Germany's Max Planck Society say recent troubles highlight need for change*, Science Magazine, 2018  
[sciencemag.org](http://sciencemag.org)

## Grants, awards and scholarships

- Fellow "Freies Wissen" of the Wikimedia Foundation, 2019/20.
- Scholarship to attend the Lindau Nobel Laureate meeting in physics, 2019.
- Winner of the "Data Literacy Education" contest by Stifterverband and Volkswagenstiftung. Award of 250k € to implement the Project "Daten Lesen Lernen" at the Campus Göttingen, 2018.
- GGNB excellence stipend for the realization of the project "Geophysical Pattern Formation in Salt Playa", 2015.
- Dr. Berliner - Dr. Ungewitter prize for outstanding master's thesis, Georg-August-University, 2015.
- Scholarship to attend the European Forum Alpbach 2014 and 2017.

## Publications

- 1 *Topological Phenotypes Constitute a New Dimension in the Phenotypic Space of Leaf Venation Networks*, H. Ronellenfitch, **J. Lasser**, D. Daly, and E. Katifori, PLoS Computational Biology, DOI: [doi.org/10.1371/journal.pcbi.1004680](https://doi.org/10.1371/journal.pcbi.1004680) (2015).
- 2 *NET: a new framework for the vectorization and examination of network data*, **J. Lasser** and E. Katifori, Source Code for Biology. and Medicine, DOI: [doi.org/10.1186/s13029-017-0064-3](https://doi.org/10.1186/s13029-017-0064-3) (2017).
- 3 *Salt polygons are caused by convection*, **J. Lasser**, M. Ernst, J. Nield, V. Karius, G. Wiggs and L. Goehring, preprint, URL: [arxiv.org/abs/1902.03600v2](https://arxiv.org/abs/1902.03600v2) (2019).
- 4 *Stability of convection in dry salt lakes*, **J. Lasser**, M. Ernst and L. Goehring, preprint, URL: [arXiv:2004.10578v1](https://arxiv.org/abs/2004.10578v1) (2020).
- 5 *A structured open dataset of government interventions in response to COVID-19*, A. Descars-Larrive, E. Dervic, N. Haug, T. Niderkronthaler, J. Chen, A. Di Natale, **J. Lasser** et al., preprint, DOI: [doi.org/10.1101/2020.05.04.20090498](https://doi.org/10.1101/2020.05.04.20090498) (2020).
- 6 *Analyzing Covid-19 Data using SIRD Models*, A. Chakraborty, J. Chen, A. Desvars-Larrive, P. Klimek, E. Flores Tames, D. Garcia, L. Horstmeyer, M. Kaleta, **J. Lasser**, J. Reddish, B. Pinior, J. Wachs, P. Turchin, preprint, DOI: [doi.org/10.1101/2020.05.28.20115527](https://doi.org/10.1101/2020.05.28.20115527) (2020).
- 7 *Dashboard of sentiment in Austrian social media during COVID-19*, M. Pellert, **J. Lasser**, H. Metzler, D. Garcia, preprint, URL: [arXiv:2006.11158](https://arxiv.org/abs/2006.11158) (2020).
- 8 *Surface and subsurface characterisation of salt pans expressing polygonal patterns*, **J. Lasser**, J. Nield and L. Goehring, Earth System Science Data, discussion paper, DOI: [doi.org/10.5194/essd-2020-86](https://doi.org/10.5194/essd-2020-86) (2020).
- 9 *Perceptions of publication pressure in the Max Planck Society*, Nature Human Behaviour, C. Wu, B. Regler, M. Vögele, L. Einhorn, S. Elizarova, S. Förste, J. Shenolikar and **J. Lasser**, commentary, DOI: [doi.org/10.1038/s41562-019-0728-x](https://doi.org/10.1038/s41562-019-0728-x) (2019).
- 10 *Addressing the Mental Health Crisis among Doctoral Researchers*, Y. Peterse, **J. Lasser**, G. Caglio, K. Stoltmann, D. Rusiecka und M. Schmidt, commentary, DOI: [doi.org/10.5281/zenodo.1402423](https://doi.org/10.5281/zenodo.1402423) (2018).