Manuel Schottdorf, PhD

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A. Education

2/2018	**Ph. D.** in Physics. Summa cum laude. Göttingen University, Germany.
	2/2016 Summer school in Biophysics. ICTP-SAIFR, São Paulo, Brazil.
	6/2014 Summer school in Computational Neuroscience. OIST, Okinawa, Japan.
2/2013	**M. Sc.** with honors. FOKUS Physik. University of Würzburg, Germany.
10/2011	**M. Sc.** Physics. Rutgers, The State University of New Jersey, U.S.A.
7/2010	**B. Sc.** Physics (minor Philosophy). University of Würzburg, Germany.

B. Appointments

1/2025 — present	**Assistant Professor,** University of Delaware, Psychological and Brain Sciences.
8/2022 — 1/2025	**Associate Research Scholar**, Princeton Neuroscience Institute (PNI), Princeton University, Princeton, NJ (Supervisors: David Tank, Carlos Brody)
8/2018 — 8/2022	**Postdoctoral Research Associate**, Princeton Neuroscience Institute (PNI), Princeton University, Princeton, NJ (Supervisors: David Tank, Carlos Brody)
2/2018 — 8/2018	**Postdoctoral Research Associate**, Neuroscience, Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany (Supervisors: Walter Stühmer, Fred Wolf)
2/2013 — 2/2018	**Graduate student (PhD)** at the Max Planck Institute (MPI) for Experimental Medicine (now MPI for Interdisciplinary Science) and the MPI for Dynamics and Self-Organization. Advisors: Fred Wolf & Walter Stühmer.
2011 — 2013	**Graduate student (M. Sc.)** in theoretical physics. MPI for Dynamics and Self-Organization. Advisor: Fred Wolf.
2010 — 2011	**Graduate student (M. Sc.)** in experimental condensed matter physics. Rutgers, the State University of New Jersey. Advisor: Eva Andrei.
2010	**Undergraduate researcher** in experimental biophysics at Jülich Research Center. Advisor: Bernhard Wolfrum.

C. Grants, Fellowships and Awards

2023 — 2028	**Burroughs Wellcome CASI Award** (awarded to 9 projects among 209 applicants — $500k funding / 5 years faculty).
ongoing	**C.V. Starr Fellowship** (to researchers with "*exceptional skills and potential*" — awarded to ~1-2 postdocs / year at the Princeton Neuroscience Institute).
2018	**Otto Hahn Medal** of the Max Planck Society (awarded annually to ~30 out of ~5000 PhD students across all Institutes for "*outstanding scientific achievements during the PhD*").
2013 — 2015	**Boehringer Ingelheim Fonds PhD Fellowship** (one of the most prestigious and competitive international scholarships for PhD students in the life sciences).
2010 — 2012	Fellow of **FOKUS Physik** (A competitive and accelerated graduate program for "*excellent and highly motivated students*"; top ~5% of students).
2010	Invited to the **60th Lindau Nobel Laureate Meeting.**
2009 — 2013	**Max Weber Scholarship** by the German National Academic Foundation for "*exceptionally gifted students*" (top ~0.6% of students).

D. Scientific contributions

A. Preprints

1. S. Koukuntla, J.B. Julian, J. C. Kaminsky, **M. Schottdorf**, D.W. Tank, C.D. Brody, A.S. Charles: "*Unsupervised discovery of the shared and private geometry in multi-view data*", Arxiv https://arxiv.org/abs/2408.12091 (2024).
2. C. Gillon, C. Baker, R. Ly, E. Balzani, B. Brunton, **M. Schottdorf**, S. Ghosh, N. Dehghani: "*ODIN: Open Data In Neurophysiology: Advancements, Solutions & Challenges*", Arxiv https://arxiv.org/abs/2407.00976 (2024).
3. L. Brown, J. Cho, S. Bolkan, E. Nieh, **M. Schottdorf**, D. Tank, C. Brody, I. Witten, M. Goldman: "*Neural circuit models for evidence accumulation through choice-selective sequences*", BioRxiv https://doi.org/10.1101/2023.09.01.555612 (2023).

B. Peer reviewed publications

1. **M. Schottdorf**, P. Dylan Rich, E. Mika Diamanti, A. Lin, S. Tafazoli, E. Nieh, S. Thiberge: "*TWINKLE: An open-source two-photon microscope for teaching and research*" PLoS ONE in press (2025).
2. **M. Schottdorf**, G. Yu, Edgar Walker: "*Data science and its future in large neuroscience collaborations*", Neuron 112(18): 3007-3012 (2024).
3. J. LaChance*, **M. Schottdorf***, T. Zajdel, J. Saunders, S. Dvali, C. Marshall, L. Seirup, I. Sammour, R. Chatburn, D. Notterman, D. Cohen: "*PVP1—The People's Ventilator Project: A fully open, low-cost, pressure-controlled ventilator research platform compatible with adult and pediatric uses*", PLoS ONE 17(5): e0266810 (2022).
4. D. Suo, U. Ghai, E. Minasyan, P. Gradu, X. Chen, N. Agarwal, C. Zhang, K. Singh, J. LaChance, T. Zajdel, **M. Schottdorf**, D. Cohen & E. Hazan: "*Machine Learning for Medical Ventilator Control*", Machine Learning for Health (ML4H), available on arXiv: 2102.06779 (2022).
5. **M. Schottdorf** & B.B. Lee: "*A quantitative description of macaque ganglion cell responses to natural scenes: the interplay of time and space*", Journal of Physiology 599(12): 3169-3193 (2021).
6. E. Nieh*, **M. Schottdorf***, N. Freeman, R. Low, S. Lewallen, S.-A. Koay, L. Pinto, J. Gauthier, C. Brody & D. Tank: "*Geometry of abstract learned knowledge in the hippocampus"*, Nature 595: 80–84 (2021).
7. C.L.A. Ho, R. Zimmermann, J.D.F. Weidinger, M. Prsa, **M. Schottdorf**, S. Merlin, T. Okamoto, K. Ikezoe, F. Pieri, F. Aujard, A. Angelucci, F. Wolf & D. Huber: "*Orientation Preference Maps in Microcebus murinus Reveal Size-Invariant Design Principles in Primate Visual Cortex*", Current Biology 31: 1-9 (2021).
8. D. B. Nestvogel, R. M. Merino, C. L. Pinzon, **M. Schottdorf**, C. Lee, C. Imig, N. Brose & J.-S. Rhee: "*The Synaptic Vesicle Priming Protein CAPS-1 Shapes the Adaptation of Sensory Evoked Responses in Mouse Visual Cortex*", Cell Reports 30: 3261-3269 (2020).
9. **M. Schottdorf**: "*The reconstitution of visual cortical feature selectivity in vitro*", PhD Thesis. Göttingen University. Available on: https://ediss.uni-goettingen.de/handle/11858/00-1735-0000-002E-E348-B (2018)
10. M. Helmer, **M. Schottdorf,** A. Neef & D. Battaglia: "*Gender bias in peer-review*", eLife 6: e21718 (2017).
11. R. Samhaber*, **M. Schottdorf***, A. El Hady*, K. Bröking, A. Daus, C. Thielemann, W. Stühmer & F. Wolf: "*Growing neuronal islands on multi-electrode arrays using an Accurate Positioning-μCP device*", J. Neurosc. Methods 257(1): 194-203 (2016).
12. **M. Schottdorf**, W. Keil, D. Coppola, L. White & F. Wolf: "*Random wiring, ganglion cell mosaics, and the functional architecture of the visual cortex*", PLoS Comp. Bio. 11(11): e1004602 (2015).
13. **M. Schottdorf**, S. Eglen, F. Wolf & W. Keil: "*Can Retinal Ganglion Cell Dipoles Seed Iso-Orientation Domains in the Visual Cortex?*", PLoS ONE 9(1): e86139 (2014).

14. **M. Schottdorf**, B. Hofmann, E. Kätelhön, A. Offenhäusser & B. Wolfrum: "*Frequency-dependent signal transfer at the interface between electrogenic cells and nanocavity electrodes*", Phys. Rev. E 85: 031917 (2012).
15. B. Hofmann, E. Kätelhön, **M. Schottdorf**, A. Offenhäusser & B. Wolfrum: "*Nanocavity electrode array for recording from electrogenic cells*", Lab on a Chip 11: 1054-1058 (2011).

* denotes equally contributing first authors.

C. Data and Software publications

1. **M. Schottdorf**, J. Saunders et al. *PVP1: Code and Documentation (v1.0).* Zenodo. https://doi.org/10.5281/zenodo.5933282 (2022).
2. **M. Schottdorf** & B. Lee: *Macaque retinal ganglion cell responses to natural movies in vivo*, https://doi.gin.g-node.org/10.12751/g-node.xage77 (2021).
3. R. Samhaber*, **M. Schottdorf***, A. El Hady*, K. Bröking, A. Daus, C. Thielemann, W. Stühmer, F. Wolf: *Construction and use of an accurate positioning-μCP device*, https://doi.org/10.12751/g-node.1e7756 (2019).
4. **M. Schottdorf**, W. Keil, D. Coppola, L. White, F. Wolf: *A dataset of 151 visual cortical orientation preference maps from four species*, https://doi.org/10.12751/g-node.b4820c (2019).

D. Selected talks

1. MPI for Brain Research, Frankfurt, Germany, 4/2024
2. Rutgers, Department of Neuroscience and Cell Biology, New Brunswick, NJ, 2/2024
3. Ludwig-Maximilians-Universität, München, Germany, 1/2024
4. University of Delaware, Psychological & Brain Sciences, Newark, Delaware, USA 1/2024
5. Neuroscience Gateway Workshop, SfN, Washington DC, 11/2023
6. Retreat of the Princeton Neuroscience Institute, Vernon Township, NJ 5/2022
7. Bernstein Conference Workshop, Germany 9/2020
8. Cosyne Workshops, Breckenridge, Colorado, 3/2020.
9. Princeton Neuroscience Institute (PNI) Seminar, Princeton University, Princeton, NJ 11/2019.
10. Bernstein Seminar, Freiburg University, Freiburg, Germany, 6/2018.
11. Dynamics Symposium, Corvara, Italy, 3/2018.
12. Cosyne Workshops, Breckenridge, Colorado, USA, 3/2018
13. Max Planck Campus Seminar, Göttingen, Germany, 1/2018
14. 2nd Basel Computational Biology Conference, Basel, Switzerland, 9/2017
15. 3rd Ringberg Conference on Ion Channels, Ringberg, Germany, 10/2016
16. 1st ICMNS, Antibes, France, 6/2015
17. NeuroBioTheory Seminar Frankfurt Institute for Advanced Study, Host: *Matthias Kaschube* 12/2014
18. Univ. of Electro-Communications, Tokyo, Host: *Shigeru Tanaka*, 7/2014
19. Osaka University, Osaka, Japan, Host: *Ichiro Fujita*, 7/2014
20. Kyushu University, Fukuoka, Japan, Host: *Tsuyoshi Okamoto*, 7/2014
21. Kyushu University, Fukuoka, Japan, Host: *Kenichi Ohki*, 7/2014
22. Max Planck Campus Seminar, Göttingen, Germany 5/2014
23. 13th Gottingen Philosophical Seminar '*Unconscious Neuroscience*' 5/2014
24. Columbia University, NY: Columbia Neurotheory Seminar, New York Host: *Ken Miller* 3/2014
25. The Seminar in Physics. Rutgers University, New Brunswick Host: *Eva Andrei*, 3/2014
26. Technion University, Haifa, Israel, Host: *Shy Shoham*, 8/2013
27. SUNY Center of Optometry, NY, USA, Host: *Jose Manuel Alonso*, 3/2013

E. Poster

1. **M. Schottdorf**, C. Brody, D. Tank: *Low-dimensional manifolds in frontal cortex and hippocampus during spatial cognition*. SfN Chicago (2024)
2. J. Kaminsky, K. Julian, **M. Schottdorf,** J. Yanar, D. Tank, C. Brody: *The emergence of task representations within the medial prefrontal cortex during associative and reversal learning*. SfN Chicago (2024)
3. E. Diamanti, O. Karniol-Tambour, L. Pinto, **M. Schottdorf**, S. Thiberge, C. Brody, J. Pillow, D. Tank: *Task-dependent neuronal interactions across cortical areas*. SfN Chicago (2024).
4. R. Cho, S. Bolkan, L. Brown, J. Lopez-Luna, **M. Schottdorf**, A. Bondy, B. McMannon, R. Fetcho, C. Zimmerman, A. Pan Vazquez, M. Siniscalchi, I. Witten: *Striatum-to-cortex interactions support evidence-guided decisions*. SfN Chicago (2024).
5. L. Brown, R. Cho, S. Bolkan, E. Nieh, **M. Schottdorf**, S.-A. Koay, D. Tank, C. Brody, I. Witten, M. Goldman: *Neural choice-selective sequences across regions align with sequential evidence accumulation models.* Cosyne Lisbon, Portugal (2024)
6. **M. Schottdorf,** J. Julian, J. Kaminsky, C. Brody, D. Tank: *Coordinated geometric representations of learned knowledge in hippocampus and frontal cortex.* SfN Washington DC (2023)
7. J. Julian, J. Kaminsky, **M. Schottdorf**, C. Brody, D. Tank: *Coordinated hippocampal-prefrontal theta-paced flickering of place cell maps during decision-making.* SfN Washington DC (2023)
8. S. Bolkan, R. Cho, **M. Schottdorf**, A. Brondy, J. Lopez-Luna, A. Luna, B. McMannon, C. Zimmerman, R. Fetcho, A. Pan Vazquez, L. Brown, Y. El-Jayyousi, I. Stone, I. Witten: *Latent behavioral states reorganize decision-making neural dynamics in a prefrontal-striatal circuit.* SfN Washington DC (2023)
9. **M. Schottdorf,** J. Julian, J. Kaminsky, C. Brody, D. Tank: Coordinated geometric representations of learned knowledge in hippocampus and frontal cortex. Bernstein Conference Berlin, Germany 10.12751/nncn.bc2023.241 (2023)
10. **M. Schottdorf**, J. Julian, J. Kaminsky, C. Brody, D. Tank: *Coordinated geometric representations of learned knowledge in hippocampus and frontal cortex*. Cosyne Montreal, Canada (2023)
11. **M. Schottdorf**, C. Brody, D. Tank: *Geometric representations of knowledge by neural manifolds across brain areas.* Bernstein Conference Berlin, Germany doi:10.12751/nncn.bc2022.265 (2022)
12. L. S. Brown, J. R. Cho, S. S. Bolkan, E. H. Nieh, **M. Schottdorf**, S.-A. Koay, D. W. Tank, C. D. Brody, I. B. Wittten, M. S. Goldman: *Neural circuit models for accumulating evidence through sequences in a navigation-based, decision-making task*. SfN San Diego (2022)
13. J. Julian, **M. Schottdorf**, E. Fonseca, D. W. Tank, C. D. Brody: *Hippocampal contributions to context-dependent decision-making.* SfN San Diego (2022)
14. L. Brown, J. Ryan Cho, S. Bolkan, E. Nieh, **M. Schottdorf**, S.-A. Koay, D. Tank, C. Brody, I. Witten, M. Goldman: *Model architectures for choice-selective sequences in a navigation-based, evidence accumulation task*. Cosyne Lisbon, Portugal (2022)
15. E. Nieh, **M. Schottdorf**, N. W. Freeman, E. J. Low, S. Lewallen, S.-A. Koay, L. Pinto, S. C. Venditto, J. L. Gauthier, C. D. Brody, D. W. Tank: *Low-dimensional neural manifolds in the hippocampus contain geometric representations of learned knowledge.* SfN online-only (2021)
16. F. Schwarz, **M. Schottdorf**, J. Franz, J. Vogel, W. Stühmer, C. Stadelmann-Nessler, F. Wolf, A. Neef: *Chronic optogenetic stimulation regularizes collective activity of neuronal cultures.* Bernstein Conference online-only doi:10.12751/nncn.bc2021.p087 (2021)
17. J. Vogel, J. Franz, **M. Schottdorf**, S. Shoham, W. Stühmer, F. Wolf: *Recapitulating the evolutionary transformation of visual cortex architecture in a tabletop experiment.* Bernstein Conference online-only doi:10.12751/nncn.bc2021.p205 (2021)
18. J. Vogel, J. Franz, **M. Schottdorf,** S. Shoham, W. Stühmer, F. Wolf: *A synthetic biology approach to the evolutionary transformation of visual cortex architecture.* Bernstein Conference online-only doi: 10.12751/nncn.bc2020.0277 (2020)
19. E. Nieh, **M. Schottdorf**, N. Freeman, S.-A. Koay, L. Pinto, J. Gauthier, C. Brody, D. Tank: G*eometric representation of abstract learned knowledge by neural manifolds in hippocampus.* Cosyne Denver, CO (2020)
20. **M. Schottdorf**, E. Nieh, N. Freeman, J. Gauthier, M. Ioffe, S.-A. Koay, L. Pinto, C. Brody, D. Tank: *Characterization of hippocampal neural activity in evidence accumulation and decision-making*. Brain initiative meeting Washington DC, USA (2019)

21. E. Nieh, **M. Schottdorf**, N. Freeman, J. Gauthier, M. Ioffe, S.-A. Koay, L. Pinto, C.Brody, D. W. Tank: *Characterization of hippocampal neural activity in evidence accumulation and decision-making*. Cosyne Lisbon, Portugal (2019)
22. J. Vogel, **M. Schottdorf**, J. Franz, S. Shoham, W. Stühmer, F. Wolf: *A synthetic biology approach to the evolutionary transformation of visual cortex architecture*. Bernstein Conference Berlin, Germany doi: 10.12751/nncn.bc2019.0113 (2019)
23. E. Nieh, **M. Schottdorf**, N. Freeman, J. Gauthier, S.-A. Koay, L. Pinto, M. Ioffe, D. Tank, C. Brody: *Hippocampal Representation of Cognitive Space in Evidence Accumulation and Decision-making*. Bernstein Conference Berlin, Germany 2019. doi: 10.12751/nncn.bc2019.0183 (2019)
24. J. Franz, **M. Schottdorf**, J. Weidinger, F. Wolf: *Optimal positioning of metabolic compartments in V1*. Bernstein Conference Berlin, Germany. doi:10.12751/nncn.bc2018.0129 (2018)
25. J. Franz, J. Liedtke, J. Weidinger, **M. Schottdorf,** B. Feulner, L. Reichl, W. Keil, F. Wolf F: *A symmetry based parametrization of candidate optimization principles for functional architecture of the primary visual cortex.* Bernstein Conference Göttingen, Germany doi: 10.12751/nncn.bc2017.0115 (2017)
26. **M. Schottdorf**, J. Liedtke, J. Flórez Weidinger, F. Wolf: *Challenges for a colorful brain:the integration of shape and color in the primary visual cortex.* Bernstein Conference Göttingen, Germany. doi:10.12751/nncn.bc2017.0202 (2017).
27. **M. Schottdorf**, J Vogel, H. Schrobsdorff, W. Stühmer, F. Wolf: *Spontaneous emergence of structured responses in a random neural network in-vitro*. SfN San Diego, CA (2016)
28. **M. Schottdorf**, J Vogel, H. Schrobsdorff, W. Stühmer, F. Wolf: *Orientation selectivity in neural networks in-vitro*. Bernstein Conference Berlin, Germany doi:10.12751/nncn.bc2016.0176 (2016)
29. B. B. Lee, **M. Schottdorf**: *Responses of macaque ganglion cells to natural scenes: spatial and temporal factors*, European Conference on Visual Perception (ECVP) Barcelona, Spain (2016)
30. J. Liedtke, **M. Schottdorf**, F. Wolf: *Maximum entropy models for 3D layouts of orientation selectivity,* CNS Jeju, Korea (2016)
31. **M. Schottdorf**, H. Schrobsdorff, W. Stühmer, F. Wolf: *Computer generated holography for optogenetic modulation of neural network activity in-vitro*. Maps Conference, Strasbourg, France (2015)
32. **M. Schottdorf,** H. Schrobsdorff, W. Stühmer, F. Wolf: *Spontaneous emergence of structured responses in a random neural network in-vitro*. Bernstein Conference Heidelberg, Germany doi:10.12751/nncn.bc2015.0206 (2015)
33. **M. Schottdorf**, H. Schrobsdorff, W. Stühmer, F. Wolf: *Orientation selectivity in a network of cortical neurons in-vitro*, 11th Meeting of the German Neuroscience Society, Göttingen, Germany (2015)
34. **M. Schottdorf,** H. Schrobsdorff, W. Stühmer, F. Wolf: *Computer generated holography for optogenetic modulation of neural network activity in vitro*. DPG Spring Meeting of the German Physical Society Bochum, Germany (2015)
35. **M. Schottdorf**, W. Keil, J. D. Florez-Weidinger, D. M. Coppola, A. Grinvald, K. Ikezoe, Z. F. Kisvarday, T. Okamoto, D. B. Omer, L. White, F. Wolf: *How did the evolution of color vision impact V1 functional architecture?* International Conference on Mathematical Neuroscience Antibes, France (2015)
36. **M. Schottdorf**, W. Keil, J. D. Florez-Weidinger, D. M. Coppola, A. Grinvald, K. Ikezoe, Z. F. Kisvarday, T. Okamoto, D. B. Omer, L. White, F. Wolf: *How did the evolution of color vision impact V1 functional architecture?* Cosyne Salt Lake City, Utah (2015)
37. **M. Schottdorf,** H. Schrobsdorff, W. Stühmer, F. Wolf: *Response of neural networks to spatially structured optogenetic input in-vitro*. Channelrhodopsin Meeting Würzburg, Germany (2014)
38. **M. Schottdorf**, H. Schrobsdorff, W. Stühmer, F. Wolf: *Response of neural networks to spatially structured optogenetic input in-vitro*. Bernstein Conference Göttingen, Germany doi: 10.12751/nncn.bc2014.0161 (2014)
39. **M. Schottdorf**, W. Stühmer, F. Wolf: *Reconstituting the emergence of visual cortical feature selectivity in-vitro*. Maps Conference Edinburgh, United Kingdom (2014)
40. **M. Schottdorf**, S. J. Eglen, F. Wolf, W. Keil: *Can retinal ganglion cell dipoles seed iso-orientation domains in the visual cortex?* Cosyne Salt Lake City, Utah (2014)
41. L. Somers, **M. Schottdorf**, M. Wanunu, E. Y. Andrei: *Tunneling Currents through DNA Bases Tightly Constrained in a Fluid Channel*. APS March meeting Denver, CO (2014)

42. **M. Schottdorf**, F. Wolf, W. Keil: *Inferring retinal ganglion cell mosaics from realistic orientation preference maps in cat V1*. Bernstein Conference Tübingen, Germany doi:10.12751/nncn.bc2013.0123 (2013)
43. **M. Schottdorf**, W. Keil, F. Wolf: *Ganglion Cell mosaics and their Potential Influence on Orientation Preference Maps*. 10th Meeting of the German Neuroscience Society Göttingen, Germany (2013)
44. **M. Schottdorf**, W. Keil, M. Schnabel, D. M. Coppola, S. Löwel, L. E. White, M. Kaschube, F. Wolf: *Do orientation preference maps arise from hexagonal retinal ganglion cell mosaics?* Cosyne Salt Lake City, Utah (2013)
45. L. Somers, **M. Schottdorf**, C. Farina, M. Wanunu, E. Y. Andrei: *A Fluid Channel Coincident With Graphene Tunneling Leads for DNA sequencing*. APS March meeting Baltimore, Maryland (2013)
46. **M. Schottdorf**, J. Meyerson, A. M. B. Goncalves, E. Y. Andrei: *A nanochannel with an embedded transverse graphene tunneling electrode for molecular probing*. Gordon Conference on Correlated Electron Systems Mount Holyoke College, South Hadley, MA (2012)
47. **M. Schottdorf**, A. M. B. Goncalves, E. Y. Andrei: *Graphene nanogaps as molecular probes*. Gotham Metro Condensed Matter Meeting of the NY Academy of Science New York, NY (2011)
48. B. Hofmann, **M. Schottdorf**, E. Kätelhön, A. Offenhäusser, B. Wolfrum: *Nanofluidic micro-electrode array for interfacing of individual electrogenic cells*. Nanobio Europe Münster, Germany (2010)

E. Professional Service

2023 — 2024	Co-directing the NIH U19 Data science consortium, and leading the “Data Sharing” subgroup.
2022 — 2023	Co-organizer of the Princeton Neuroscience Institute’s Seminar Series.
2019 — 2021	During the COVID-19 pandemic, administrating and directing the People’s Ventilator Project.
3/2018	Co-organizer of the Cosyne Workshop *The perturbing approach to understanding the brain* Breckenridge, Colorado, USA.
9/2016	Main organizer of the PhD student organized 2-week Advanced Computational Neuroscience Summer School (2nd aCNS), Göttingen, Germany.
6/2016	Main organizer of the student retreat of the graduate program Physics of Theoretical and Computational Neuroscience (PTCN), Goslar, Germany.
9/2015	Main organizer of the 1st aCNS summer school, Göttingen, Germany.
7/2015	Main organizer of the PTCN retreat, Burg Ludwigstein, Germany.
3/2014	Organized the 2014 Dynamics Symposium, a 1-week retreat for Max Planck researchers, Mandarfen, Austria.
9/2014	Main organizer of the Bernstein Conference’s PhD student organized event: *Can the problem of consciousness be solved?*
4/2013	Organized the 2013 Dynamics Symposium, Corvara, Italy.
2013 — 2017	Elected PTCN student representative. For 4 years, I was the main contact person between students and university to articulate grievances, and represent student interests.
Reviewing:	Cosyne; Frontiers; IEEE; J Neuroscience; J Physiology; J of Women’s Health; Nature Communications; NBDT; Neural Networks; Plos CB; Progress in Neurobiology; Vision Research
Editing:	Guest Editor at Plos CB
Membership:	Society for Neuroscience

F. Teaching

Spring 2025	UD PSYC209 — Statistics and measurement

11/2021	Taught class on **Persistent Neural Activity** for graduate students on behalf of Prof. Dr. Carlos Brody, Princeton course #501A, Princeton University.
Winter 2015/16	Organized and taught the **Advanced Python Programming Course**, Göttingen University.
Summer 2015	Organized a seminar on **Plasticity in Neural Networks**, Department of Physics, Göttingen University.
Summer 2015	Directed a **Student-organized Tools Seminar**, and gave lectures on advanced programming concepts, signal processing and best practices for paper writing.
Winter 2014/15	Organized a seminar on **Information Theory in Dynamical Systems**, Department of Physics, Göttingen University.
Summer 2014	Organized and taught **Python Programming for Neuroscience Graduate Students.**
Winter 2013/14	Organized and taught a seminar on the **Physics of Vision**, Department of Physics, Göttingen University.
Winter 2011/12	TA for **Theoretical Physics IV: Statistics and Thermodynamics**. Organized by Prof. Dr. Reinhold Oppermann, Department of Physics, Würzburg University.
Winter 2009/10	TA for **Computational Physics**. Organized by Prof. Dr. Haye Hinrichsen, Department of Physics, Würzburg University.
Summer 2009	TA **Computational Methods for Physicists**. Organized by Prof. Dr. Haye Hinrichsen, Department of Physics, Würzburg University.

G. Public Outreach

A. Overview

2024/2	**Young Scientist Symposium 2024**. PNI: Lab tours, conversations, round table for high school students.
2012 — ongoing	I am contributing author and editor for Wikipedia (~20 new articles, ~500 edits). Articles to which I am the main contributor were viewed >250k times. Seven of these articles were also voted by the community to be featured on the main page.
2012— ongoing	I wrote multiple **popular science articles** (see below)
2019/5	Presenting at the **Philly Science Festival** (1 day) with Princeton's Molecular Biology Outreach Program.
2019/3	Judge at the **Hopewell Elementary school STEM Fair**.
2015/7	Presenting the **Max Planck Science Tunnel** at the IdeenExpo; one week (2.-11.).
2015/1	Presenting at the **Göttingen Night of Science**.
2014/9	Speaker at the **Bernstein Conference's Public Evening Event.**
2014/6	Presenting at the **Göttingen Night of Science**.
2012/9	Presenting "**Rätsel der Materie**"; three days (19.-22.), Göttingen, Germany

B. Interviews and Press Coverage

a. Press releases:
   i. Google Blog: "Machine Learning for Mechanical Ventilation Control" 2/2022 [link]
   ii. Brian DePasquale: *The Manifold Mind.* 10/2021 [link]

b. Simons Foundation Blog:
   i. Brian DePasquale: *Searching for Shapes in Neural Activity.* 4/2022 [link]
   ii. Emily Singer: *Practicing Neuroscience During a Pandemic.* 4/2020 [link]
   iii. Emily Singer: *The Data-Sharing Problem in Neuroscience.* 10/2019 [link]
   iv. Emily Singer: *Taming the Wild Data World of Neuroscience.* 10/2019 [link]

c. Work at Max Planck
   i. Carolin Hoffrogge-Lee: *Success story at MPI continues.* 6/2018 [link]
   ii. Carolin Hoffrogge-Lee: *No cable spaghetti in the brain.* 11/2015 [link]