

Johannes Singer

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Freie Universität Berlin,
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EDUCATION

PhD in Psychology

Freie Universität Berlin, Neural Dynamics of Visual Cognition
Lab, PI: Radoslaw Cichy

Berlin, Germany
03/2021 - 03/2025

Master of Science, Neuro-cognitive Psychology

Ludwig-Maximilians-Universität Munich,
Final Grade: 1.0

Munich, Germany
10/2018 - 10/2020

Bachelor of Science, Psychology

Paris-Lodron-Universität Salzburg,
Final Grade: 1.2

Salzburg, Austria
10/2015 - 10/2018

Bachelor of Arts, Philosophy and History

University of Regensburg,
Final Grade: not finished

Regensburg, Germany
10/2014 - 08/2015

A-levels (Abitur)

Gymnasium Parsberg,
Final Grade: 1.6

Parsberg, Germany
07/2014

WORK EXPERIENCE

Postdoctoral Researcher

Cognitive Computational Neuroscience Lab
PI: Adrien Doerig

Berlin, Germany
06/2025 - present

Visiting PhD Student

Kietzmann Lab, University Osnabrück
PI: Tim Kietzmann

Osnabrück, Germany
09/2023 – 12/2023

Research Scientist

Max Planck Institute for Human Cognitive and Brain Sciences,
Leipzig, PI: Martin Hebart

Leipzig, Germany
10/2020 – 02/2021

Master Student

Max Planck Institute for Human Cognitive and Brain Sciences,
Leipzig, PI: Martin Hebart

Leipzig, Germany
03/2020 – 09/202

Research Assistant

Ludwig-Maximilians-Universität, München
PI: Paul Sauseng

Munich, Germany
11/2018 – 03/2020

Research Internships

Centre for Functionally Integrative Neuroscience,
University Aarhus, Denmark
Biological Psychology Group,
Ludwig-Maximilians-Universität, München
Salzburg Brain Dynamics Lab, University Salzburg

2017-2019

DISTINCTIONS & GRANTS

Scholarship for Research Stay

Max Planck Institute for Human Cognitive and Brain Sciences,
Leipzig

10/2021

Travel scholarship

Bavarian State ministry of social affairs, family and work affairs

08/2019

Scholarship for outstanding academic performance

University of Salzburg

08/2018

STUDENT SUPERVISION & TEACHING

- Ülkü Tonbuloglu (M.Sc. Student, FU Berlin)
- Gabriele Inciuraitė (M.Sc. Student, FU Berlin)
- Seminar “Visual object recognition”FU Berlin (SS2024)
- Workshop “RSA-based M/EEG-fMRI fusion” (2022)

PUBLICATIONS

- Carricarte, T., Xie, S., **Singer, J.**, Trampel, R., Huber, L., Weiskopf, N., & Cichy, R. M. (2025). Layer-specific spatiotemporal dynamics of feedforward and feedback in human visual object perception. *bioRxiv*, 2025-05.
- Gifford, A. T., Jastrzębowska, M. A., **Singer, J.**, & Cichy, R. M. (2024). In silico discovery of representational relationships across visual cortex. *Nature Human Behaviour*, 1-20. <https://doi.org/10.1038/s41562-025-02252-z>
- **Singer, J.**, Karapetian, A., Hebart, M. N., & Cichy, R. M. (2025). Identifying and characterizing scene representations relevant for categorization behavior. *Imaging Neuroscience*, 3, https://doi.org/10.1162/imag_a_00449
- Xie, S., **Singer, J.**, Yilmaz, B., Kaiser, D., & Cichy, R. M. (2024). Recurrence affects the geometry of visual representations across the ventral visual stream in the human brain. *PLoS Biology*, 23(8), e3003354. <https://doi.org/10.1371/journal.pbio.3003354>
- **Singer, J.**, Cichy, R. M., & Hebart, M. N. (2023). The spatiotemporal neural dynamics of object recognition for natural images and line drawings. *Journal of Neuroscience*, 43(3), 484-500. <https://doi.org/10.1523/JNEUROSCI.1546-22.2022>
- Friedrich, E. V. C., Zillekens, I. C., Biel, A. L., O'Leary, D., **Singer, J.**, Seegenschmiedt, E. V., Sauseng, P., & Schilbach, L. (2023). Spatio-temporal dynamics of oscillatory brain activity during the observation of actions and interactions between point-light agents. *European Journal of Neuroscience*, 57(4), 657–679. <https://doi.org/10.1111/ejn.15903>
- **Singer, J.**, Seeliger, K., Kietzmann, T. C., & Hebart, M. N. (2022). From photos to sketches - how humans and deep neural networks process objects across different levels of visual abstraction. *Journal of Vision* 2022;22(2):4. <https://doi.org/10.1167/jov.22.2.4>.
- Friedrich, E. V., Zillekens, I. C., Biel, A. L., O'Leary, D., Seegenschmiedt, E. V., **Singer, J.**, ... & Sauseng, P. (2022). Seeing a Bayesian Ghost: Sensorimotor Activation Leads to an Illusory Social Perception. *iScience*, 104068. <https://doi.org/10.1016/j.isci.2022.104068>

CONFERENCE PROCEEDINGS

- **Singer, J.**, Cichy, R.M., Kietzmann, T.C., Thorat, S. (2024). Contrasting computational models of task-dependent readout from the ventral visual stream. *Conference on Cognitive Computational Neuroscience (CCN)* [Poster].
- **Singer, J.**, Hebart, M. N., Cichy, R.M. (2023). Revealing the locus and content of behaviorally relevant information about real-world scenes in human visual cortex. *Annual Meeting of the Vision Sciences Society* [Poster].
- **Singer, J.**, Cichy, R.M, Hebart, M. N. (2022). Similarities and differences in the spatio-temporal neural dynamics underlying the recognition of natural images and line drawings. *Annual Meeting of the Vision Sciences Society* [Talk].
- **Singer, J.**, Seeliger, K., Hebart, M. N. (2020). The representation of object drawings and sketches in deep convolutional neural networks. *NeurIPS Workshop on Shared Visual Representations in Human & Machine Intelligence* [Poster].

ACADEMIC REFERENCES

- Radosław Martin Cichy, Prof.
Research Group Leader
Freie Universität Berlin
Department of Psychology and Education
Habelschwerdter Allee 45 14195, Berlin, Germany
radoslaw.cichy@fu-berlin.de
- Martin Hebart, Prof.
Research Group Leader
Justus-Liebig Universität Giessen/ Max Planck
Institute for Human Cognitive and Brain Sciences
Stephanstraße 1 04103, Leipzig, Germany
martin.hebart@gmail.com