# DANIEL HAENELT

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## EDUCATION

**Max Planck Institute for Human and Cognitive and Brain Sciences** 2017 - Present
*PhD student* *Leipzig, Germany*

- Graduate school: International Max Planck Research School on Neuroscience of Communication: Function, Structure, and Plasticity (IMPRS NeuroCom)
- Research topic: High resolution functional magnetic resonance imaging methods at ultra-high magnetic field strength (7 T)
- Supervisor: Prof. Dr. Nikolaus Weiskopf (Department of Neurophysics)

**Leipzig University** 2014 - 2017
*Master of Science (M.Sc.) in Physics* *Leipzig, Germany*

- Master thesis: *Layer-dependent fMRI of the primary motor cortex at 7 T indicates whether we act or imitate* (Grade: 1.7)
- Final grade: 1.9

**Leipzig University** 2012 - 2016
*Bachelor of Arts (B.A.) in Musicology and Philosophy* *Leipzig, Germany*

- Bachelor thesis: *Investigation of a correlation between spontaneous motor tempo and individual alpha-band brain activity* (Grade: 1.0)
- Final grade: 1.4

**Free University** 2008 - 2013
*Bachelor of Science (B.Sc.) in Physics* *Berlin, Germany*

- Bachelor thesis: *Femtosekundenspektroskopie an relevanten Molekülen des interstellaren Mediums* (Grade: 1.0)
- Final grade: 2.6

**German Abitur (A-level equivalent)** 2008
*Goethe Oberschule* *Berlin, Germany*

- Final grade: 1.8

## EXPERIENCE

**Max Planck Institute for Human and Cognitive and Brain Sciences** 01/2015 - 09/2015
*Student assistant* *Leipzig, Germany*

- Research group: Department of Neurophyics
- Topic: Development of a pipeline for co-registration of high resolution functional MRI data with MIPAV using CBS High-Res Brain Processing Tools.

**Max Planck Institute for Human and Cognitive and Brain Sciences** 12/2013 - 11/2014
*Internship* *Leipzig, Germany*

- Research group: Auditory Cognition
- Topic: Examination of resting-state EEG measurements and self-paced tapping (SMT)

**Leibniz Institute for Tropospheric Research (TROPOS)** 06/2012 - 12/2012
*Student assistant* *Leipzig, Germany*

· Research group: Optical Remote Sensing
· Topic: Measurement of aerosol-cloud interactions with a light detection and ranging system (LIDAR)

**Institute of Scientific and Technical Research for Defense (CITEDEF)** 03/2013 - 04/2013
*Internship* *Buenos Aires, Argentina*

· Research institute: Laser Institute for Atmospheric Research (CEILAP)
· Topic: Investigation of air pollution in Buenos Aires using a Light detection and ranging system (LIDAR)

**University of Granada** 10/2010 - 02/2011
*Erasmus-scholarship* *Granada, Spain*

· Faculty abroad: Physics and Environmental Sciences

## ARTICLES

· Iamshchinina, P., **Haenelt, D.,** Trampel, R., Weiskopf, N., Kaiser, D., Cichy, R. M. (2021). Benchmarking GE-BOLD, SE-BOLD, and SS-SI-VASO sequences for depth-dependent separation of feedforward and feedback signals in high-field MRI. *bioRxiv*, 1–18.

· Iamshchinina, P., Kaiser, D., Yakupov, R., **Haenelt, D.,** Sciarra, A., Mattern, H., Luesebrink, F., Duezel, E., Speck, O., Weiskopf, N., Cichy, R. M. (2021). Perceived and mentally rotated contents are differentially represented in cortical depth of V1. *Communication Biology*, 4(1069), 1–8.

· Attar, F. M., Kirilina, E., **Haenelt, D.,** Pine, K. J., Trampel, R., Edwards, L. J., Weiskopf, N. (2020). Mapping Short Association Fibers in the Early Cortical Visual Processing Stream Using In Vivo Diffusion Tractography. *Cerebral Cortex*, 30(8), 4496–4514.

## TALKS AND POSTER PRESENTATIONS

· **Haenelt, D.,** Trampel, R., Nasr, S., Polimeni, J. R., Tootell, R. B. H., Sereno, M. I., Pine, K. J., Edwards, L. J., Helbling, S., Weiskopf, N. (2021). Myelination differences of stripes in human V2: Preliminary evidence from 7 T quantitative MRI. Poster presented at 27th Annual Meeting of the Organization for Human Brain Mapping (OHBM), Virtual Conference.

· Iamshchinina, P., Kaiser, D., Yakupov, R., **Haenelt, D.,** Sciarra, A., Mattern, H., Duezel, E., Speck, O., Weiskopf, N., Cichy, R. M. (2020). Perceived and mentally rotated contents are differentially represented in cortical layers of V1. Poster presented at 26th Annual Meeting of the Organization for Human Brain Mapping (OHBM), Virtual Conference.

· **Haenelt, D.,** Weiskopf, N., Vaculciakova, L., Mueller, R., Nasr, S., Polimeni, J. R., Tootell, R. B. H., Huber, L., Sereno, M. I., Trampel, R. (2020). Mapping ocular dominance columns in humans using GE-EPI, SE-EPI and SS-SI-VASO at 7 T. Talk at ISMRM & SMRT Virtual Conference & Exhibition 2020, Virtual Conference.

· **Haenelt, D.,** Weiskopf, N., Mueller, R., Nasr, S., Polimeni, J. R., Tootell, R. B. H., Sereno, M. I., Trampel, R. (2019). Reliable 3D mapping of ocular dominance columns in humans using GE-EPI fMRI at 7 T. Poster presented at 25th Annual Meeting of the Organization for Human Brain Mapping (OHBM), Rome, Italy.

· Attar, F. M., Kirilina, E., **Haenelt, D.,** Trampel, R., Edwards, L. J., Weiskopf, N. (2019). Mapping visual field specific short V1-V2 connectivity using high resolution dMRI and fMRI. Poster presented at 25th Annual Meeting of the Organization for Human Brain Mapping (OHBM), Rome, Italy.

· Attar, F. M., Kirilina, E., **Haenelt, D.,** Edwards, L. J., Pine, K. J., Weiskopf, N. (2019). Mapping short association fibres in the human visual system with ultra high resolution and high sensitivity diffusion MRI. Talk at ISMRM & SMRT Virtual Conference & Exhibition 2019, Montreal, Canada.

· Neef, N. E., Trampel, R., Lu, L., **Haenelt, D.,** Bazin, P.-L., Turner, R., Weiskopf, N., Friederici, A. D. (2019). Imagined and actual speaking disentangle involvement of motor and somatosensory cortices: Submillimeter resolution resolves the cortical organization of speech pronunciation. Poster presented at Symposium: Neural Bases of Speech Production, San Francisco, USA.

· **Haenelt, D.,** Trampel, R., Mueller, R., Nasr, S., Polimeni, J. R., Tootell, R. B. H., Sereno, M. I., Weiskopf, N. (2019). Reliable mapping of columnar structures in early visual cortex using GE-EPI at 7 T. Poster presented at ISMRM Workshop on Ultrahigh Field Magnetic Resonance, Dubrovnik, Croatia.

· **Haenelt, D.,** Trampel, R., Nasr, S., Polimeni, J. R., Tootell, R. B. H., Sereno, M. I., Weiskopf, N. (2018). Mapping colour-selective columns in V2 across cortical depth using GE- and SE-EPI. Poster presented at 24th Annual Meeting of the Organization for Human Brain Mapping (OHBM), Singapore.

· **Haenelt, D.,** Trampel, R., Bazin, P.-L., Weiskopf, N., Kuehn, E. (2017). Layer-dependent BOLD of M1 during observed and actual finger tapping. Poster presented at the 7th summer school of the International Max Planck Research School on Neuroscience of Communication: Function, Structure, and Plasticity (IMPRS NeuroCom), London, UK.

## TECHNICAL SKILLS

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| **Programming Languages** | Python, Matlab |
| **Web Development** | HTML, CSS, JavaScript, ReactJS |