

# Curriculum Vitae: Michael Andreas Nitsche

## Personal Data

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| Title               | Dr. med.  |
| First name          | Michael Andreas   |
| Name                | Nitsche   |
| Current position    | Professor, Scientific Director  |
| Current institution | Dept. Psychology & Neurosciences, Leibniz Research Centre for Working Environment and Human Factors |
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## Qualifications and Career

### Stages

Degree programme

### Periods and Details

Psychology, 1987 – 1995, Georg-August-University, Göttingen, Germany

Medicine, 1991 – 1998, Georg-August-University, Göttingen, Germany

Doctorate 2000

Christoph Fromm, Medicine, MPI for Biophysical Chemistry, Medical Faculty, Georg-August-University, Göttingen, Germany.

Stages of academic career

Since 2015 Full W3 Professor, Scientific Director at Leibniz Research Centre for Working Environment and Human Factors at TU Dortmund

2006-2015 Consultant at Medical Faculty, Dept. Clinical Neurophysiology, Georg-August University, Göttingen

2006 Habilitation for Neurology

1999-2005 Resident at Medical Faculty, Dept. Clinical Neurophysiology, Georg-August University, Göttingen

## Engagement in the Research System

Peer review: I review(ed) for 4 German foundations, and research programs (DFG, DLR/BMBF, Forun/University of Rostock, Bayerische Forschungsförderung), 24 international foundations, and international review panels (including FWO, NIH), and more than 50 international journals

Meetings: Organizer, 13<sup>th</sup> International Conference on Complex Medical Engineering, Dortmund 2019, Program Committee member of bi-annual international “Brain Stimulation” Conference, and the “International Conference on Transcranial Brain Stimulation”

Teaching: regular teaching activities in Neurology (Georg-August-University Göttingen), NWG course Transcranial Brain Stimulation, Master course “Neuroscience (Univ. Pablo de Olavide, Sevilla, Spain)

Grants: – Funding awarded to me by DFG, BMBF, etc.: 5,1 M €

– Funding awarded to collaborative initiatives with me as co-investigator: 127,6 Mio. €

## Supervision of Researchers in Early Career Phases

PhD/MD programs: Aguida Foerster (2013-2018, PhD, magna cum laude, now physiotherapist, lecturer at physiotherapy school), Lynn Müller (2012-2018, magna cum laude, MD), Desmond Agboada (2016-2020, PhD, magna cum laude, now postdoc at Army University, Munich), Ali Salehinejad (2017-2020, PhD, summa cum laude, now postdoc in my laboratory), Mohsen Mosayebi (2017-2021, PhD, summa cum laude), Lorena DeMelo (2017-2023, magna cum

laude), Ensyeh Ghasemian-Shirvan (2016-2023, magna cum laude), Tiam Hosseinian (2016-2023, magna cum laude)

- 3 of my former students became professors (Taiwan: 1, India: 1, Brazil:1)
- Since 2015, I supervised 12 postdocs, 9 students graduated, 12 are working on their PhDs

### Scientific Results (Category A)

1. Salehinejad MA, Ghanavati E, Reinders J, Hengstler JG, Kuo MF, Nitsche MA, Sleep-dependent upscaled excitability, saturated neuroplasticity, and modulated cognition in the human brain. *Elife*, 2022, 11:e69308. doi: 10.7554/eLife.69308
2. Ghanavati E, Salehinejad MA, De Melo L, Nitsche MA, Kuo MF, NMDA receptor-related mechanisms of dopaminergic modulation of tDCS-induced neuroplasticity. *Cereb Cortex*, 2022, 32(23):5478-5488. doi: 10.1093/cercor/bhac028.
3. Ghasemian-Shirvan E, Mosayebi-Samani M, Farnad L, Kuo MF, Meesen RLJ, Nitsche MA, Age-dependent non-linear neuroplastic effects of cathodal tDCS in the elderly population: a titration study. *Brain Stimul*, 2022, 15(2):296-305. doi: 10.1016/j.brs.2022.01.011.
4. Salehinejad MA, Wischniewski M, Ghanavati E, Mosayebi-Samani M, Kuo MF, Nitsche MA, Cognitive functions and underlying parameters of human brain physiology are associated with chronotype. *Nature Comm*, 2021, 12: 4672. doi: 10.1038/s41467-021-24885-0.
5. Hosseinian T, Yavari F, Kuo MF, Nitsche MA, Jamil A, Phase synchronized 6 Hz transcranial electric and magnetic stimulation boosts frontal theta activity and enhances working memory. *Neuroimage*, 2021, 245:118772. doi: 10.1016/j.neuroimage.2021.118772
6. Farnad L, Ghasemian-Shirvan E, Mosayebi-Samani M, Kuo MF, Nitsche MA, Exploring and optimizing the neuroplastic effects of anodal transcranial direct current stimulation over the primary motor cortex of older humans. *Brain Stimul*, 2021, 14(3), 622-634. doi: 10.1016/j.brs.2021.03.013.
7. Vicario CM, Salehinejad MA, Felmingham K, Martino G, Nitsche MA, A systematic review on the therapeutic effectiveness of non-invasive brain stimulation for the treatment of anxiety disorders. *Neurosci Biobehav Rev*, 2019, 96:219-231. doi: 10.1016/j.neubiorev.2018.12.012
8. Polanía R, Nitsche MA, Ruff CC, Studying and modifying brain function with non-invasive brain stimulation. *Nat Neurosci*, 2018, 21:174-187. doi: 10.1038/s41593-017-0054-4
9. Voss U, Holzmann R, Hobson A, Paulus W, Koppehele-Gossel J, Klimke A, Nitsche MA, Induction of self awareness in dreams through frontal low current stimulation of gamma activity. *Nat Neurosci*, 2014, 17:810-2.
10. Polanía R, Nitsche MA, Korman C, Batsikadze G, Paulus W, The importance of timing in segregated theta phase-coupling for cognitive performance. *Curr Biol*, 2012, 22:1314-8. doi: 10.1016/j.cub.2012.05.021.

### Academic Distinctions

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| Since 2021 | Member of German National Academy of Sciences Leopoldina |
| 2012       | Richard Jung Award (DGKN)                                |
| 2006       | GESET Award  |
| 2001       | Alois Kornmüller Award (DGKN)                            |