

# CURRICULUM VITAE

## Persönliche Daten

Name: **Dr. Christina Artemenko** (geb. Woitscheck)  
Geburtsdatum: 29.01.1989  
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Links: [Homepage](#), [Google Scholar](#)

## Bildungsweg

seit 10/2022 **Stellvertretende Gruppenleitung**, Diagnostik und Kognitive Neuropsychologie, Fachbereich Psychologie, Universität Tübingen

seit 10/2020 **Margarete-von-Wrangell-Fellow**, Fachbereich Psychologie, Universität Tübingen  
*Unterbrechung* (04/2023-12/2023): Mutterschutz und Elternzeit

2018 – 2020 **Postdoc**, Diagnostik und Kognitive Neuropsychologie, Fachbereich Psychologie, Universität Tübingen  
*Unterbrechung* (07/2019-04/2020): Mutterschutz und Elternzeit

2013 – 2018 **Dr. rer. nat. Psychologie**, LEAD Graduate School & Research Network, Universität Tübingen  
*Dissertationsthema*: „Neurocognitive Foundations of Arithmetic Complexity in Adults and Children“  
*Unterbrechung* (02/2016-01/2017): Mutterschutz und Elternzeit

2011 – 2013 **M. Sc. Cognitive Science**, Universität Osnabrück  
*Masterarbeit*: „Influences of unilateral unipolar transcranial direct current stimulation (tDCS) on numerical cognition“

2007 – 2011 **B. A. Philosophie-Neurowissenschaften-Kognition**, Otto-von-Guericke Universität Magdeburg  
*Bachelorarbeit*: „Behavioural developmental study about the influence of spatial context on the recognition of everyday actions“

bis 2007 **Abitur**, Sächsisches Landesgymnasium Sankt Afra zu Meißen für Hochbegabtenförderung  
*Auslandspraktikum* (02/2007): Konrad-Adenauer-Stiftung, Moskau (Russland)  
*Auslandsaufenthalt* (12/2004-02/2005): Schule, Omsk (Russland)

## Tätigkeiten

seit 01/2023 **Vorstandsmitglied**, LEAD Graduate School & Research Network (Learning, Educational Achievement, and Life Course Development), Universität Tübingen

seit 03/2020 **Mitglied** in der Postdoctoral Academy for Research on Education (PACE), Hector-Institut für Empirische Bildungsforschung, Universität Tübingen

seit 04/2013 **Mitglied** in der Intersection Educational Neuroscience, LEAD Graduate School & Research Network (Learning, Educational Achievement, and Life Course Development), Universität Tübingen

04/2013 – 01/2016 **Projekt** „Neurocognitive Evaluation of a Web-Based Learning Platform for Arithmetic“, WissenschaftsCampus Tübingen „Bildung in

	Informationswelten“, Universität Tübingen
10/2012 – 03/2013	<b>Forschungspraktikum</b> , Diagnostik und Kognitive Neuropsychologie (Leitung: Nürk), Universität Tübingen
10/2011 – 07/2012	<b>Wissenschaftliche Hilfskraft</b> , Institut für Kognitive Mathematik und Forschungsinstitut für Mathematikdidaktik (Leitung: Schwank), Universität Osnabrück
10/2010 – 02/2011	<b>Forschungspraktikum</b> , Minerva-Forschungsgruppe Kognition der Motorik (Leitung: Schubotz), Max-Planck-Institut für neurologische Forschung, Köln
01/2010 – 03/2010	<b>Forschungspraktikum</b> , Forschungsgruppe Modellierung dynamischer Wahrnehmung und Handlung (Leitung: Kiebel), Max-Planck-Institut für Kognitions- und Neurowissenschaften, Leipzig
10/2009 – 12/2009	<b>Forschungspraktikum</b> , Max-Planck-Institut für neurologische Forschung, Minerva-Forschungsgruppe Kognition der Motorik (Leitung: Schubotz), Köln
10/2008 – 01/2009	<b>Studentische Hilfskraft als Mentor</b> für den Studiengang „Philosophie-Neurowissenschaften-Kognition“, Otto-von-Guericke Universität Magdeburg

### Stipendien, Forschungs- und Konferenzförderung

- Artemenko, C.** (2024-2027): Grant for the project “Neurocognitive changes in magnitude and fact-retrieval processes underlying arithmetic with higher age”. Project funding from the German Research Foundation (DFG, 513458453, 317.386 €).
- Yao, X., **Artemenko, C.**, & Barth, B. (2023): Grant for the project “Neurocognitive correlates of multi-digit arithmetic”. LEAD Intramural Research Grants (4.124 €).
- Artemenko, C.** (2022-2025): Grant for the project “The behavioral and neural correlates of arithmetic across the lifespan”. Project funding from the German Research Foundation (DFG, 468460838, 210.334 €).
- Artemenko, C.**, Schroeder, P. A., & Dresler, T. (2021): Grant for Summer School “Hands-on fNIRS data analysis for fundamental, applied and clinical research” in Tuebingen. Program for the Promotion of Junior Researchers, Institutional Strategy of the University of Tuebingen, supported by DFG (15.058 €).
- Artemenko, C.** (2020-2025): Fellowship of the Margarete von Wrangell-Programm. Europäischer Sozialfond und Ministerium für Wissenschaft, Forschung und Kunst Baden-Württemberg (350.000 €).
- Artemenko, C.** (2020-2021): Grant for the project “Calculation in the Elderly Brain”. Program for the Promotion of Junior Researchers, Institutional Strategy of the University of Tuebingen, supported by DFG (14.540 €).
- Artemenko, C.** (2019): Grant for travelling to the Psychologie und Gehirn, Dresden. Universitätsbund (115 €).
- Artemenko, C.** (2018): Grant for travelling to the EARLI SIG 22 “Neuroscience and Education” in London and the Mathematics Education Centre’s 3<sup>rd</sup> annual symposium “The symbol grounding problem”, Loughborough. Universitätsbund (260 €).
- Nuerk, H.-C., & Dresler, T. (2015): Grant for symposium “Neuroeducation of Number Processing” in Hanover. VolkswagenStiftung (Az: 89903) (30.800 €). [unofficial applicant]
- Nuerk, H.-C., Fischer, M. H., & Dresler, T. (2014): Grant for workshop „Educational Neuroscience of Mathematics” in Tuebingen. DFG (GZ: NU 265/2-1) (9.600 €). [unofficial applicant]
- Woitscheck, C.**, Dresler, T., Nuerk, H.-C., & Ehlis, A.-C. (2014-2015): Grant for the project “Embodied number line training with portable devices”. LEAD Intramural Research Grants (9.720 €).
- Woitscheck, C.**, & Dresler, T. (2014-2015): Grant for the project “Stimulation Intervention for Dyscalculics”. LEAD Intramural Research Grants (9.982 €).
- Woitscheck, C.** (2013-2014): Grant for the project “Neurofunctional Foundations of Arithmetic Processes”. LEAD Intramural Research Grants (6.306 €).

## Registered Reports (in Fachzeitschriften mit Peer-Review)

1. Avcil, M., & **Artemenko, C.** (2023). Development of arithmetic across the lifespan: A Registered Report. *Developmental Psychology*. Registered Report Stage 1. <https://psyarxiv.com/rkf6y/>
2. Loenneker, H.D., Liepelt-Scarfone, I., Willmes, K., Nuerk, H.-C., & **Artemenko, C.** (2022). Arithmetic deficits in Parkinson's Disease? A Registered Report. Registered Report Stage 1, in principle acceptance by *Peer Community in Registered Reports*. doi:10.17605/OSF.IO/NB5FJ
3. **Artemenko, C.** (2021). Developmental fronto-parietal shift of brain activation during mental arithmetic across the lifespan: A registered report protocol. *PLoS ONE*, 16(8), e0256232. Registered Report Stage 1. doi:10.1371/journal.pone.0256232
4. Loenneker, H.D., **Artemenko, C.**, Willmes, K., Liepelt-Scarfone, I., & Nuerk, H.-C. (2021). Deficits in or preservation of basic number processing in Parkinson's Disease? A registered report. *Journal of Neuroscience Research*, 00, 1-16. Registered Report Stage 1. doi:10.1002/jnr.24907
5. Schroeder, P.A., **Artemenko, C.**, Cipora, K., & Svaldi, J. (2019). Regional specificity of cathodal transcranial direct current stimulation (tDCS) effects on spatial-numerical associations: Comparison of four stimulation sites. *Journal of Neuroscience Research*, 98(4), 655-667. Registered Report Stage 1. doi:10.1002/jnr.24559  
Farshad, M., **Artemenko, C.**, Cipora, K., Svaldi, J., & Schroeder, P. A. (2024). Regional specificity of cathodal transcranial direct current stimulation effects on spatial-numerical associations: Comparison of four stimulation sites. *Journal of Neuroscience Research*, 102(2), e25304. Registered Report Stage 2. doi:10.1002/jnr.25304
6. Soltanlou, M., Nuerk, H.-C., & **Artemenko, C.** (2018). Cognitive enhancement or emotion regulation: The influence of brain stimulation on math anxiety. *Cortex*. Registered Report Stage 1. doi:10.17605/OSF.IO/6EN48

## Publikationen (in Fachzeitschriften mit Peer-Review)

7. Cipora, K., Lunardon, M., Masson, N., Georges, C., Nuerk, H.-C., & **Artemenko, C.** (2024). The AMATUS Dataset: Arithmetic Performance, Mathematics Anxiety and Attitudes in Primary School Teachers and University Students. *Journal of Open Psychology Data*, 12: 10, pp. 1–17. doi:10.5334/jopd.115
8. **Artemenko, C.**, Giannouli, V., & Nuerk, H.-C. (2024). Age-related effects in magnitude and place-value processing. *Scientific Reports*, 14(1), 13645. doi:10.1038/s41598-024-63298-z
9. Loenneker, H. D., Cipora, K., **Artemenko, C.**, Soltanlou, M., Bellon, E., De Smedt, B., Garcia-Orza, J., Giannouli, V., Gutierrez-Cordero, I., Lipowska, K., van Dijck, J.-P., Yao, X., Nuerk, H.-C., & Huber, J. F. (2024). Math4Speed - a freely available measure of arithmetic fluency. *Canadian Journal of Experimental Psychology*. doi:10.1037/cep0000347
10. Bahreini, N., **Artemenko, C.**, Plewnia, C., & Nuerk, H.-C. (2023). tDCS effects in basic symbolic number magnitude processing are not significantly lateralized. *Scientific Reports*, 13(1), 21515. doi:10.1038/s41598-023-48189-z
11. Terry, J., Ross, R.M., Nagy, T., Salgado, M., Garrido-Vásquez, P., Sarfo, J.O., Cooper, S., Buttner, A.C., Lima, T.J.S., Öztürk, İ., Akay, N., Santos, F.H., **Artemenko, C.**, ..., & Field, A.P. (2023). Data from an International Multi-Centre Study of Statistics and Mathematics Anxieties and Related Variables in University Students (the SMARVUS Dataset). *Journal of Open Psychology Data*, 11(1), 8. doi:10.5334/jopd.80
12. Schroeder, P.A., **Artemenko, C.**, Kosie, J.E., Cockx, H., Stute, K., Pereira, J., Klein, F., & Mehler, D.M.A. (2023). Using preregistration as a tool for transparent fNIRS study design. *Neurophotonic*, 10(2), 023515. doi:10.1117/1.NPh.10.2.023515
13. **Artemenko, C.**, Wortha, S.M., Dresler, T., Frey, M., Barrocas, R., Nuerk, H.-C., & Moeller, K. (2022). Finger-based numerical training increases sensorimotor activation for arithmetic in children – An fNIRS study. *Brain Sciences*, 12(5):637. doi:10.3390/brainsci12050637
14. Rossi, S., Xenidou-Dervou, I., Simsek, E., **Artemenko, C.**, Daroczy, G., Nuerk, H.-C., & Cipora, K. (2022). Mathematics-gender stereotype endorsement influences mathematics anxiety, self-concept, and

performance differently in men and women. *Annals of the New York Academy of Sciences*, 1513(1), 121-139. doi:10.1111/nyas.14779

15. Soltanlou, M., Dresler, T., **Artemenko, C.**, Rosenbaum, D., Ehlis, A.-C., & Nuerk, H.-C. (2022). Training causes activation increase in temporo-parietal and parietal regions in children with mathematical disabilities. *Brain Structure and Function*, 221, 1757-1771. doi:10.1007/s00429-022-02470-5
16. Huber, J.F., & **Artemenko, C.** (2021). Anxiety-related difficulties with complex arithmetic – A web-based replication of the anxiety-complexity effect. *Zeitschrift für Psychologie*, 229(4). doi:10.1027/2151-2604/a000469
17. **Artemenko, C.**, Masson, N., Georges, C., Nuerk, H.-C., & Cipora, K. (2021). Not all elementary school teachers are scared of math. *Journal of Numerical Cognition*, 7(3). doi:10.5964/jnc.6063
18. **Artemenko, C.\***, Sitnikova, M.A.\*, Soltanlou, M., Dresler, T., & Nuerk, H.-C. (2020). Functional lateralization of arithmetic processing in the parietal cortex is associated with handedness. *Scientific Reports*, 10:1775. doi:10.1038/s41598-020-58477-7
19. Soltanlou, M., Coldea, A., **Artemenko, C.**, Ehlis, A.-C., Fallgatter, A.J., Nuerk, H.-C., & Dresler, T. (2019). No difference in the neural representation of number and letter symbols in children: An fNIRS study. *Mind, Brain, and Education*, 13(4), 313-325. doi:10.1111/mbe.12225
20. **Artemenko, C.**, Soltanlou, M., Bieck, S.M., Ehlis, A.-C., Dresler, T., & Nuerk, H.-C. (2019). Individual Differences in Math Ability Determine Neurocognitive Processing of Arithmetic Complexity: A Combined fNIRS-EEG Study. *Frontiers in Human Neuroscience*, 13:227. doi:10.3389/fnhum.2019.00227
21. Soltanlou, M., **Artemenko, C.**, Dresler, T., Fallgatter, A.J., Nuerk, H.-C.\*, & Ehlis, A.-C.\* (2019). Oscillatory EEG changes during arithmetic learning in children. *Developmental Neuropsychology*, 44(3), 1-17. doi:10.1080/87565641.2019.1586906
22. Soltanlou, M., **Artemenko, C.**, Dresler, T., Fallgatter, A.J., Ehlis, A.-C., & Nuerk, H.-C. (2019). Math anxiety in combination with low visuospatial memory impairs math learning in children. *Frontiers in Psychology*, 10:89. doi:10.3389/fpsyg.2019.00089
23. **Artemenko, C.\***, Coldea, A.\*, Soltanlou, M., Dresler, T., Nuerk, H.-C.\*, & Ehlis, A.-C.\* (2018). The neural circuits of number and letter copying: An fNIRS study. *Experimental Brain Research*, 236(4), 1129-1138. doi:10.1007/s00221-018-5204-8
24. **Artemenko, C.**, Soltanlou, M., Dresler, T., Ehlis, A.-C.\*, & Nuerk, H.-C.\* (2018). The neural correlates of arithmetic difficulty depend on mathematical ability: Evidence from combined fNIRS and ERP. *Brain Structure and Function*, 223(6), 2561-2574. doi:10.1007/s00429-018-1618-0
25. **Artemenko, C.**, Soltanlou, M., Ehlis, A.-C., Nuerk, H.-C.\*, & Dresler, T.\* (2018). The neural correlates of mental arithmetic in adolescents: a longitudinal fNIRS study. *Behavioral and Brain Functions*, 14:5. doi:10.1186/s12993-018-0137-8
26. Soltanlou, M., **Artemenko, C.**, Ehlis, A.-C., Huber, S., Fallgatter, A.J., Dresler, T.\*, & Nuerk, H.-C.\* (2018). Reduction but not shift in brain activation in arithmetic learning in children: A simultaneous fNIRS-EEG study. *Scientific Reports*, 8:1707. doi:10.1038/s41598-018-20007-x
27. **Artemenko, C.**, Pixner, S., Moeller, K., & Nuerk, H.-C. (2018). Longitudinal development of subtraction performance in elementary school. *British Journal of Developmental Psychology*, 36(2), 188-205. doi:10.1111/bjdp.12215
28. Bieck, S.M., **Artemenko, C.**, Moeller, K., & Klein, E. (2018). Low to no effect: application of tRNS during two-digit addition. *Frontiers in Neuroscience*, 12:176. doi:10.3389/fnins.2018.00176
29. Soltanlou, M., **Artemenko, C.**, Dresler, T., Haecussinger, F.B., Fallgatter, A.J., Ehlis, A.-C., & Nuerk, H.-C. (2017). Increased arithmetic complexity is associated with domain-general but not domain-specific magnitude processing in children: A simultaneous fNIRS-EEG study. *Cognitive, Affective, & Behavioral Neuroscience*, 17(4), 724-736. doi:10.3758/s13415-017-0508-x
30. Schroeder, P.A., Dresler, T., **Artemenko, C.**, Bahnmüller, J., Cohen-Kadosh, R., & Nuerk, H.-C. (2017). Cognitive Enhancement of Numerical and Arithmetic Capabilities: a Mini-Review of Available Transcranial Electric Stimulation Studies. *Journal of Cognitive Enhancement*, 1(1), 39-47. doi:10.1007/s41465-016-0006-z

31. Wurm, M.F., **Artemenko, C.**, Giuliani, D., & Schubotz, R.I. (2017). Action at its place: Contextual settings enhance action recognition in 4- to 8-year-old children. *Developmental Psychology*, 53(4), 662-670. doi:10.1037/dev0000273
32. Roesch, S., Jung, S., Huber, S., **Artemenko, C.**, Bahnmüller, J., Heller, J., Grust, T., Nuerk, H.-C., & Moeller, K. (2016). Training arithmetic and orthography on a web-based and socially-interactive learning platform. *International Journal of Education and Information Technologies*, 10, 204-217.
33. **Artemenko, C.**, Daroczy, G., & Nuerk, H.-C. (2015). Neural correlates of math anxiety – an overview and implications. *Frontiers in Psychology*, 6:1333. doi:10.3389/fpsyg.2015.01333
34. **Artemenko, C.**, Moeller, K., Huber, S., & Klein, E. (2015). Differential influences of unilateral tDCS over the intraparietal cortex on numerical cognition. *Frontiers in Human Neuroscience*, 9:110. doi:10.3389/fnhum.2015.00110

[\* equally contributed]

### Buchkapitel & Kommentare

35. Loenneker, H.D., Huber, J.F., **Artemenko, C.**, Heller, J., & Nuerk, H.-C. (2022). Realitätscheck Open Science in der universitären Lehre. *Psychologische Rundschau*, 73(1), 47-49. doi:10.1026/0033-3042/a000577
36. Cipora, K., **Artemenko, C.**, & Nuerk, H.-C. (2019). Different ways to measure math anxiety. In: I. Mammarella, S. Caviola, A. Dokwer (Eds.). *Mathematics Anxiety: What is known and what is still to be understood* (pp. 20-41). Routledge.

### Ausgewählte aktuelle Konferenzbeiträge

- Artemenko, C.** (2024). Finger counting – preconditions, strategies, interventions, representations, and education. **Symposium** organized at the DGPS-Congress, Wien, Austria, 16.09.-19.09.2024.
- Artemenko, C.**, Roesch, S., Nuerk, H.-C., & Moeller, K. (2024). Finger-based numerical representations in the sensorimotor cortex in children and adults —Evidence from fNIRS. **Talk** given at the DGPS-Congress, Wien, Austria, 16.09.-19.09.2024.
- Artemenko, C.** (2024). Neural plasticity of the mathematical brain. **Symposium** organized at the Meeting of the International Mind, Brain and Education Society (IMBES), Leuven, Belgium, 10.07.-12.07.2024.
- Artemenko, C.**, & Avcil, M. (2024). Developmental fronto-parietal shift of brain activation during arithmetic across the lifespan. **Talk** given at the Meeting of the International Mind, Brain and Education Society (IMBES), Leuven, Belgium, 10.07.-12.07.2024.
- Artemenko, C.** (2024). Cognitive Aging. **Symposium** organized at the Psychologie und Gehirn (PUG), Hamburg, Germany, 29.05.-01.06.2024.
- Artemenko, C.** (2024). Age-related changes in arithmetic in the fronto-parietal network. **Talk** given at the Psychologie und Gehirn (PUG), Hamburg, Germany, 29.05.-01.06.2024.
- Artemenko, C.**, Cipora, K., & Nuerk, H.-C. (2022). Does math anxiety vary depending on situation? **Talk** given at the conference of the Mathematical Cognition and Learning Society (MCLS), Antwerp, Belgium, 01.-03.06.2022.
- Artemenko, C.**, & Klein, E. (2022). Aging effects on arithmetic. **Symposium** organized at the conference of the Mathematical Cognition and Learning Society (MCLS), online, 03.02.2022.
- Artemenko, C.** (2021). Developmental fronto-parietal shift of brain activation during mental arithmetic across the lifespan. **Poster** presented at the Society of fNIRS Virtual Conference, online, 18.10.2021.
- Artemenko, C.** (2021). Confronted with arithmetic complexity – An educational neuroscience approach. **Invited Talk** given at the Mathematics Education Centre, Loughborough University, Loughborough, United Kingdom, 19.05.2021.
- Artemenko, C.** (2020). Why is math so difficult? – Insights from Educational Neuroscience. **Invited Talk** given at the LEAD Retreat – Learning, Educational Achievement, and Life Course Development, online, 14.-16.10.2020.

- Artemenko, C.**, Nuerk, H.-C., & Soltanlou, M. (2019). No stimulation effects on arithmetic performance, working memory and emotion regulation: A registered report. **Talk** given at the Psychologie und Gehirn (PUG), Dresden, Germany, 20.-22.06.2019.
- Artemenko, C.** (2019). Educational Neuroscience of mathematical ability. **Invited Talk** given at the Belgorod National Research University, Belgorod, Russia, 04.06.2019.
- Artemenko, C.** (2019). Neuroscience of arithmetic complexity. **Invited Talk** given at the Interdisciplinary Summer School on Cognitive Neuroscience, Neuroeducation and Applied Neurotechnologies, Belgorod National Research University, Belgorod, Russia, 03.-08.06.2019.
- Artemenko, C.**, Soltanlou, M., Dresler, T., Ehlis, A.-C., & Nuerk, H.-C. (2018). Neurocognitive correlates of arithmetic complexity in adults and children. **Talk** given at the Third Jean Piaget Conference “The origins of number”, Geneva, Switzerland, 27.-29.06.2018.

### **Konferenzorganisation**

- Summer School “Hands-on fNIRS data analysis for fundamental, applied and clinical research” (hybrid event), Tuebingen, Germany (08/2021); funded by Program for the Promotion of Junior Researchers, Institutional Strategy of the University of Tuebingen, supported by DFG.
- Workshop „Integrating Educational and Cognitive Perspectives on Mathematics“, Tuebingen, Germany (09/2018); funded by LEAD Graduate School & Research Network (GSC 1028).
- Workshop „Linguistic and Cognitive Influences on Numerical Cognition“, Tuebingen, Germany (09/2017); funded by DFG, Narodowe Centrum Nauki, LEAD (GSC 1028), & Institut für Wissensmedien.
- Symposium „Neuroeducation of Number Processing“, Hanover, Germany (10/2015); funded by VolkswagenStiftung (Az: 89903).
- Workshop „Educational Neuroscience of Mathematics“, Tuebingen, Germany (10/2014); funded by DFG (GZ: NU 265/2-1), LEAD (GSC 1028), & ScienceCampus Tuebingen.
- Workshop „Development of Numerical Processing and Language From Neurocognitive Foundations to Educational Applications“, Tuebingen, Germany (10/2013); funded by Zukunftskonzept „Research – Relevance – Responsibility“ of the University of Tuebingen.

### **Qualifikationen**

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| Hochschuldidaktik: | Baden-Württemberg-Zertifikat für Hochschuldidaktik mit Schwerpunkt in eLearning (09/2020-12/2022)        |
| Führungskompetenz: | Certificate „Leadership in Academia, Industry & Society“ (12/2020-05/2024)                               |
| Datenmanagement:   | Certificate in Research Data Management (01/2024-02/2024)  |
| Editor:            | Collabra:Psychology (Associate Editor seit 01/2023)<br>PCI Registered Reports (Recommender seit 06/2022) |