# CURRICULUM VITAE

## Persönliche Daten

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| Name: | **Dr. Christina Artemenko** (geb. Woitscheck) |
| Geburtsdatum: | 29.01.1989 |
| Email: | christina.artemenko@uni-tuebingen.de |
| 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 |
| 2018 – 2020 | **Postdoc**, Diagnostik und Kognitive Neuropsychologie, Fachbereich Psychologie, Universität Tübingen<br>*Unterbrechung* (07/2019-04/2020)*:* Mutterschutz und Elternzeit |
| 2013 – 2018 | **Dr. rer. nat. Psychologie**, LEAD Graduate School & Research Network, Universität Tübingen<br>*Dissertationsthema:* „Neurocognitive Foundations of Arithmetic Complexity in Adults and Children“<br>*Unterbrechung* (02/2016-01/2017)*:* Mutterschutz und Elternzeit |
| 2011 – 2013 | **M. Sc. Cognitive Science**, Universität Osnabrück<br>*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<br>*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<br>*Auslandspraktikum* (02/2007): Konrad-Adenauer-Stiftung, Moskau (Russland)<br>*Auslandsaufenthalt* (12/2004-02/2005): Schule, Omsk (Russland) |

## Tätigkeiten

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|---|---|
| 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 |

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

**Stipendien, Forschungs- und Konferenzförderung**

**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 (15058 €).

**Artemenko, C.** (2020-2025): Fellowship of the Margarete von Wrangell-Programm. Europäischer Sozialfond und Ministerium für Wissenschaft, Forschung und Kunst Baden-Württemberg (350000 €).

**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 (14540 €).

**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 3rd 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) (30800 €). [inofficial 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) (9600 €). [inofficial 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 (9720 €).

**Woitscheck, C.**, & Dresler, T. (2014-2015): Grant for the project "Stimulation Intervention for Dyscalculics". LEAD Intramural Research Grants (9982 €).

**Woitscheck, C.** (2013-2014): Grant for the project "Neurofunctional Foundations of Arithmetic Processes". LEAD Intramural Research Grants (6306 €).

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

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. https://osf.io/nb5fj

**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

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

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

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)**

Schroeder, P.A., **Artemenko, C.,** Kosie, J.E., Cockx, H., Stute, K., Pereira. J., Klein, F., & Mehler, D.M.A. (accepted). Using preregistration as a tool for transparent fNIRS study design. *Neurophotonics*. https://osf.io/preprints/metaarxiv/zfawx

**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

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

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

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

**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

**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

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

**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

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

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

**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

**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

**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:0.1186/s12993-018-0137-8

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

**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

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

Soltanlou, M., **Artemenko, C.**, Dresler, T., Haeussinger, 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

Schroeder, P.A., Dresler, T., **Artemenko, C.**, Bahnmueller, 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

Wurm, M.F., **Artemenko, C.**, Giulianni, 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

Roesch, S., Jung, S., Huber, S., **Artemenko, C.**, Bahnmueller, 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.

**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

**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]

**Monographien, Buchkapitel & Kommentare**

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

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.

**Artemenko, C.** (2018). *Neurocognitive Foundations of Arithmetic Complexity in Adults and Children* (Dissertation). University of Tuebingen, Germany.

**Ausgewählte Konferenzbeiträge**

**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.**, Masson, N., Georges, C., Nuerk, H.-C., & Cipora, K. (2022). Not all elementary school teachers are scared of math. **Talk** given at the conference of the Mathematical Cognition and Learning Society (MCLS), Antwerp, Belgium, 01.-03.06.2022.

**Artemenko, C.**, Wortha, S.M., & Klein, E. (2022). Differential effects of brain stimulation in arithmetic. **Talk** given at the conference of the Mathematical Cognition and Learning Society (MCLS), online, 17.03.2022.

**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). Probleme beim Rechnen? Wie das menschliche Gehirn Zahlen verarbeitet und rechnen lernt. **Invited Talk** given at the Margarete-von-Wrangell Seminar, online, 24.11.2021.

**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.** (2021). Neurokognitive Prozesse beim Lernen von Mathematik. **Invited Talk** given at the University of Regensburg, Regensburg, Germany, 08.02.2021.

**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.** (2020). Collaboration Pitch: Calculation in the elderly brain. **Talk** given at the Mathematical Cognition and Learning Society (MCLS), online, 30.07.2020.

**Artemenko, C.** (2020). Was macht Mathe schwierig? – Numerische, kognitive, emotionale und soziale Aspekte des Lernens. **Invited Talk** given at the University of Bamberg, Germany, 15.07.2020.

**Artemenko, C.** (2019). Educational Neuroscience of Mathematical Development. **Invited Talk** given at the University of Erlangen-Nuernberg, Erlangen, Germany, 28.06.2019.

**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, 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.

**Artemenko, C.**, Soltanlou, M., Dresler, T., Ehlis, A.-C., & Nuerk, H.-C. (2018). Neurocognitive processing of arithmetic complexity depends on math ability – An fNIRS study. **Poster** presented at the 2018 Meeting of the EARLI SIG 22 "Neuroscience and Education", London, United Kingdom, 04.-06.06.2018.

**Artemenko, C.**, Soltanlou, M., Ehlis, A.-C., & Nuerk, H.-C., & Dresler, T. (2016). The neural correlates of mental arithmetic in children – A longitudinal fNIRS study. **Poster** presented at the 2016 Meeting of the EARLI SIG 22 "Neuroscience and Education", Amsterdam, the Netherlands, 23.-25.06.2016.

**Artemenko, C.**, Soltanlou, M., Dresler, T., Ehlis, A.-C., & Nuerk, H.-C. (2016). Neural correlates of the basic arithmetic operations in children. **Talk** given at the Colloquium of the LEAD Graduate School – Learning, Educational Achievement, and Life Course Development, Tuebingen, Germany, 12.01.2016.

**Artemenko, C.**, Soltanlou, M., Dresler, T., Ehlis, A.-C., & Nuerk, H.-C. (2015). Do high and low math performers differ in the neural correlates of mental arithmetic? – A combined fNIRS-EEG study. **Short talk and poster** presented at the 33nd European Workshop on Cognitive Neuropsychology, Bressanone, Italy, 25.-30.01.2015.

**Artemenko, C.**, Wurm, M., Giuliani, D., & Schubotz, R.I. (2014). Cooking in the kitchen: room-action coupling informs action recognition in 4-8 year old children. **Poster** presented in a Poster Group on "Action observation: bottom-up and top-down processes inside and outside the motor system" at the Kongress der Deutschen Gesellschaft für Psychologie, Bochum, Germany, 21.-25.09.2014.

**Woitscheck, C.**, Dresler, T., Bahnmueller, J., Ehlis, A.-C., & Nuerk, H.-C. (2014). Stimulation intervention for dyscalculics. **Talk** given at the Colloquium of the LEAD Graduate School – Learning, Educational Achievement, and Life Course Development, Tuebingen, Germany, 11.02.2014.

**Woitscheck, C.**, Moeller, K., & Klein, E. (2014). Differential influences of unilateral unipolar tDCS over the intraparietal cortex on numerical cognition. **Short talk and poster** presented at the 32nd European Workshop on Cognitive Neuropsychology, Bressanone, Italy, 26.-31.01.2014.

## 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) |
| Editor: | Collabra:Psycholgy (Associate Editor seit 01/2023) |
| | PCI Registered Reports (Recommender seit 06/2022) |