

**Prof. Dr. Nathalie Giroud**

Assistant professor

University of Zurich (UZH)  
 Department of Computational Linguistics  
 Head of research group Computational Neuroscience of Speech & Hearing  
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 Co-director of UZH competence center Language & Medicine  
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Date of birth: July 24, 1986 (in Lucerne, Switzerland)

Citizenship: Swiss, Italian

Family status: married, three children (2017, 2020, 2022)

**EDUCATION**

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|-----------------|---|
| 07/2013-09/2016 | <u>PhD in Cognitive Neuroscience and Psychology</u> , University of Zurich [summa cum laude]. Thesis: <i>Dynamics of Electrophysiology and Morphology in Older Adults with Age-related Hearing Loss</i>   |
| 07/2013-09/2016 | <u>PhD program graduate</u> , International Max Planck Research School <i>The Life Course: Evolutionary and Ontogenetic Dynamics</i><br>A joint international PhD program with the Max Planck Institute for Human Development, the Freie Universität Berlin, the Humboldt-Universität zu Berlin, the University of Michigan, the University of Virginia, and the University of Zurich |
| 09/2010–01/2013 | <u>Master of Science in Psychology</u> , University of Zurich [summa cum laude]. Thesis: <i>Speech Rhythm Decoding in the Auditory System of the Brain During Second Language Acquisition: Evidence from Behavioral and Electrophysiological Data</i>   |
| 09/2006–09/2010 | <u>Bachelor of Science in Psychology</u> , University of Zurich   |

**EMPLOYMENT HISTORY**

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|-----------------|---|
| 02/2021-08/2025 | <u>SNF-professor</u> (assistant professor) of Computational Neuroscience of Speech & Hearing, Department of Computational Linguistics, University of Zurich                                       |
| 06/2020-01/2021 | <u>Research group leader</u> of Computational Neuroscience of Speech & Hearing group, Phonetics and Speech Sciences Unit, Department of Computational Linguistics, University of Zurich           |
| 08/2019-05/2020 | <u>Postdoctoral research fellow</u> , Phonetics and Speech Sciences, Department of Computational Linguistics, University of Zurich  |
| 02/2018-07/2019 | <u>Postdoctoral research fellow</u> , Canadian Consortium on Neurodegeneration in Aging (CCNA) Team 17 and Cognition, Aging, and Psychophysiology (CAP) Lab, Concordia University                 |
| 10/2016-01/2018 | <u>Postdoctoral research fellow</u> , Research unit of Neuroplasticity and Learning in Healthy Aging (from September 2017 onwards integrated into Chair of Neuropsychology), University of Zurich |
| 01/2016-02/2016 | <u>Visiting PhD student</u> , Department of Speech and Hearing Sciences at the University of Washington, Seattle, USA   |
| 09/2015-10/2015 | <u>Visiting PhD student</u> , Research unit of Cognitive and Neural Dynamics of Memory at the Max Planck Institute for Human Development, Berlin, Germany   |
| 07/2013-09/2016 | <u>PhD student</u> , Research unit of Neuroplasticity and Learning in Healthy Aging, University of Zurich   |
| 04/2013-10/2013 | <u>Research assistant</u> , MINT-learning center, ETH Zurich  |

01/2013-06/2013	<u>Research intern</u> , Research unit Neuroplasticity and Learning in the Healthy Aging Brain, University of Zurich
09/2011–03/2013	<u>Research assistant</u> , Chair for Research on Learning and Instruction, ETH Zurich
01/2011-01/2011	<u>Research intern</u> , Institute for Educational Evaluation, University of Zurich

### **THIRD-PARTY FUNDED RESEARCH PROJECTS**

Grants as single-PI of 2.5 Mio CHF from Swiss National Science Foundation, industrial partners, patient foundations, Innosuisse and Alzheimer Society of Canada and in addition CHF 255'625.- as co-PI and just over CHF 1 Mio as collaborator.

	<u>Title</u>	<u>Role</u>	<u>Funding</u>	<u>Status</u>	<u>Amount</u>
09/2024-02/2025	“Behavioral and neurophysiological correlates of speech perception in older hearing aid users”	PI	Swiss National Science Foundation, Scientific Exchange for Dr. Niharika M.K. from SS Institute of Speech & Hearing in Karnataka, India	To be started	CHF 19'200.-
07/2024-12/2024	“BrainPerform”: Assessing performance of earbuds and brain sensors in headphones”	Co-PI	Industrial partner: Logitech, together with Prof. Dr. Thomas Fritz, Computer Science	ongoing	CHF 33'125.-
03/2024-02/2026	“Neurologische Grundlagen des Lesenlernens bei Jugendlichen mit einer Schwerhörigkeit”	PI	Zürcher Stiftung für das Hören	ongoing	CHF 131'000.-
10/2023-11/2025	“Benefits of hearing aids in older adults with dementia-risk”	PI	Industrial partner: Sonova Holding	ongoing	CHF 210'000.-
05/2023-10/2023	“App/Algorithm using brainwave analysis to assess musical sensitivity for an improvement of individual music performances and personal music reception”	PI	Innovation cheque from Innosuisse; Industrial partner and initiator: Internationally renowned pianist and entrepreneur Ingolf Wunder	completed	CHF 15'000.-
07/2022-01/2026	"Benefits of auditory-cognitive trainings for hearing rehabilitation and cognitive functioning in older hearing impaired"	PI	Industrial partner: Sonova Holding	ongoing	CHF 264'000.-
02/2022-12/2022	"Sehen und Hören in der stationären Alterspflege - Längsschnittliche Erkenntnisse aus dem Schweizer RAI-Datensatz" [Vision and hearing in inpatient care – longitudinal insights from the Swiss RAI data]	PI	Schweizerischer Blindenverein SZBLIND	completed	CHF 5000.-
10/2021-09/2023	“Lip reading training via mobile phone app: A step towards interventions against hearing loss”	Co-PI	Zürcher Stiftung für das Hören	completed	CHF 200'000.-
06/2020-05/2025	“Novel ways of preventing age-related cognitive decline: Identifying the role of speech processing deficits in Alzheimer’s disease” Project nr: 185715, <a href="http://p3.snf.ch/project-185715">http://p3.snf.ch/project-185715</a>	PI	SNF-PRIMA	ongoing	CHF 1'470'106.-
06/2020-09/2021	“The influence of prediction on neural speech tracking in older adults with hearing loss”	PI	Forschungskredit UZH	completed	CHF 73'152.-
08/2019-05/2020	“Preventing age-related cognitive decline: The role of speech processing	PI	Forschungskredit UZH	completed	CHF 93'031.-

03/2017-10/2020	deficits in older adults at risk of dementia” “Speech Intelligibility and Perception in Older Adults at the Interaction of Aging, Cognition, Tinnitus, and Hearing Loss” Project nr. 169964, <a href="http://p3.snf.ch/project-169964">http://p3.snf.ch/project-169964</a>	Collaborator*	SNF Projektförderung	completed	CHF 594'787.-
02/2018-07/2019	“The Sensory and Cognitive Interface in Mild Cognitively Impaired Older Adults as Revealed by Multimodal Neuroimaging” Project nr. 174865, <a href="http://p3.snf.ch/project-174865">http://p3.snf.ch/project-174865</a>	PI	SNF Early Postdoc Mobility	completed	CAD 94'500.- (CHF 65'556)
09/2017-08/2019	“The Sensory and Cognitive Interface in Mild Cognitively Impaired Older Adults as Revealed by Multimodal Neuroimaging”	PI	Alzheimer Society of Canada	declined in favor of SNF Early Postdoc Mobility	CAD 90'000.- (CHF 62'433)
08/2014-11/2017	“Acquisition de la prosodie en langue seconde: l'étude de la perception de l'accent lexical sur la base d'expériences comportementales et électrophysiologiques” Project nr. 148036, <a href="http://p3.snf.ch/project-148036">http://p3.snf.ch/project-148036</a>	Collaborator	SNF Ambizione	completed	CHF 421'529.-
01/2016-12/2016	“EEG data analyses part two: peer mentoring group”	Co-PI	Graduate Campus UZH	completed	CHF 9000.-
05/2015-12/2015	“EEG data analyses part one: peer mentoring group”	Co-PI	Graduate Campus UZH	completed	CHF 8500.-
2013	«Entsteht linguistische Salienz im Gehirn?» Project nr: KLIP-2013-1, <a href="https://www.ds.uzh.ch/de/forschung/projekte/salienz.html">https://www.ds.uzh.ch/de/forschung/projekte/salienz.html</a>	Collaborator	KLIP des Zürcher Kompetenz-zentrum Linguistik	completed	ca. CHF 3'000
07/2013–06/2015	“Neural signatures of speech processing plasticity over the lifespan and benefits of language learning in the elderly”	PI	Forschungskredit UZH	completed	CHF 100'050.-

\* Contributed significantly to written application as collaborator

## INSTITUTIONAL AND SCIENTIFIC RESPONSIBILITIES

### Elected memberships in Panels and Boards, competitive fellowships

10/2023-ongoing	<u>Principal investigator</u> in the Swiss national centre of competence in research (NCCR) <i>Evolving Language</i> , <u>Co-PI</u> of work package on developing hyperscanning methods for studying communication and collaborating PI in several work packages for phase II
04/2023-ongoing	<u>Elected member</u> into Sigma Xi Scientific Research Honor Society
11/2021-ongoing	<u>Elected co-director</u> of the Competence Center <i>Language &amp; Medicine</i> at the Faculty of Arts and Humanities as well as at the Faculty of Medicine at UZH
06/2021-09/2023	<u>Associate Investigator</u> in the Swiss national centre of competence in research (NCCR) <i>Evolving Language</i> phase I A nationwide interdisciplinary research consortium bringing together research groups from the humanities, from language and computer science, the social sciences, and the natural sciences to explore the past, present, and future of language
05/2021-ongoing	<u>Editorial board member</u> of the peer-review scientific journal <i>Aging Brain</i> , the open-access sister journal of Elsevier's <i>Neurobiology of Aging</i>
10/2020-ongoing	<u>Faculty member</u> of the international Max Planck Research School <i>The Life Course: Evolutionary and Ontogenetic Dynamics</i>

10/2020-09/2021 A joint international PhD program with the Max Planck Institute for Human Development, the Freie Universität Berlin, the Humboldt-Universität zu Berlin, the University of Michigan, the University of Virginia, and the University of Zurich  
Global Future Council Fellowship at the World Economic Forum WEF's Council on *Healthy Ageing and Longevity*

### **Institutional committees**

05/2023-ongoing Committee for permanent full-time lecturer position on digital health communication  
 09/2022-ongoing Committee for professorship ad personam for language, technology, and accessibility  
 03/2022-04/2022 Faculty of Arts & Social Sciences working group on competence centers at the University of Zurich

### **Other memberships & non-competitive responsibilities**

#### Current

05/2023-ongoing Member of the International Society to Advance Alzheimer's Research and Treatment (ISTAART) and invited member of its Professional Interest Area (PIA) on Sensory Health and Cognition  
 06/2022-ongoing Member of the Swiss Society for Aging Research  
 06/2020-ongoing Member of the Digital Society Initiative (DSI) at University of Zurich  
 10/2020-ongoing Board member of the Department of Computational Linguistics at University of Zurich  
 07/2020-ongoing Faculty member of the Neuroscience Center Zürich (ZNZ)  
 11/2019-ongoing Member of the Linguistik Zentrum Zürich (LiZZ)  
 06/2018-ongoing Member of the Heterodox Academy  
 09/2015-ongoing Member of The International Society for Brain Electromagnetic Topography ISBET, responsible for Facebook page (09/2015-08/2016)

#### Previous

08/2019-11/2019 Member of the Zürcher Kompetenzzentrum Linguistik (ZüKL)  
 02/2018-10/2019 Member of Team 17 of the Canadian Consortium on Neurodegeneration and Aging (CCNA), Canada  
 07/2018-10/2019 Member of Canadian Consortium of Neurodegeneration in Aging (CCNA) Trainee Society  
 05/2018-10/2019 Member of the Centre for Research on Brain, Language, and Music (CRBLM)  
 08/2016-07/2017 Member of the Society for Human Brain Mapping  
 10/2016-06/2017 Founder and organizer of interdisciplinary journal club BALi on the (aging) brain and language organizing bi-weekly meetings with students and faculty discussing new papers  
 07/2015-06/2016 Member of the Association for Psychological Science  
 01/2015-12/2016 Founder and organizer of peer-mentoring group on advanced EEG analyses organizing monthly 1–2-day workshops with international speakers  
 04/2014-07/2015 Research representative, scientific leader, and organizer of participatory committee to implement and improve participatory gerontological research at the University of Zurich organizing, moderating and participating in monthly 4-hour meetings with faculty, stakeholders, and interested older adults  
 10/2014-05/2015 Expert for national youth science competition [Schweizer Jugend forscht]  
 10/2014-10/2014 Organizer and moderator of plenary discussion with faculty and students about real-life methods to acquire behavioral and neural data during the LIFE Fall Academy in Berlin  
 11/2013-06/2014 Fellow Speaker for the International Max Planck Research School "The Life Course: Evolutionary and Ontogenetic Dynamics"  
 01/2014-12/2014 Member of peer-mentoring group on applied programming for psychologists

### **Ad-hoc Reviewing Activities**

Research Councils: Forschungskredit University of Zurich, Czech Health Research Council, German Research Foundation, Royal National Institute for Deaf People discovery research grant (UK)

Journals: Plos One, Brain Topography, Cogent Psychology, Neurobiology of Aging, NeuroImage, Ear & Hearing, Hearing Research, Speech Communication, Brain Structure and Function, Frontiers in Psychology, Journal of Cognitive Neuroscience, eNeuro, Journal of Neuroscience Research, International Journal of Psychophysiology, Trends in Hearing, Human Brain Mapping, Frontiers in Aging Neuroscience, Journal of Neuroscience, Quarterly Journal of Experimental Psychology, Brain Communications, Brain & Behavior, Neuropsychologia

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**AWARDS AND SCHOLARSHIPS**


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- 06/2023 Paper selected for Young Female Researchers in Speech Workshop 2023 at Interspeech (competitive). Santos Revilla, A., Pellegrino, E., Bolt, E., Kodrasi, I., Giroud, N. *Classifying MCI patients with and without hearing loss from speech using machine and deep learning methods* (presenting speaker and awardee: Andrea Santos Revilla)
- 07/2022 First place presentation prize at conference of international association for forensic phonetics and acoustics in Prague with presentation by Perepelytsia, V., Giroud, N., Aras, T., Meyer, M., Dellwo, V. *Neural underpinnings of familiar talker advantage: an EEG study* (presenting speaker and awardee: Valeriia Perepelytsia)
- 06/2019 First place poster prize at Schweizerischen Gesellschaft für Oto-Rhino-Laryngologie, Hals- und Gesichtschirurgie in Davos with poster by Isler, B., Giroud, N., & Meyer, M *Die altersbedingte Atrophie des rechten Planum temporale beeinflusst die Verarbeitung von spektralen Informationen der Sprache* (presenting speaker and awardee: Benjamin Isler)
- 06/2019 Recipient of the CHSCOM (Conference on Cognitive Hearing Science for Communication) scholarship for attending the CHSCOM meeting in Linköping (Sweden), ~ CHF 1800.-
- 08/2018 Recipient of Concordia University Conference and Exposition Award for attending the Joint Meeting of the ECNS, ISNIP, ISBET, and the ISFSI in Pittsburgh (USA), CAD \$1000.-
- 11/2017 Vontobel Award for Research on Age(ing) 2017 (competitive) for paper entitled *Neuroanatomical and resting state EEG power correlates of central hearing loss in older adults* published in Brain Structure and Function, CHF 12'000.-
- 05/2017 Recipient of travel grant for attending the 4th International Conference on Cognitive Hearing Science for Communication in Sweden, funded by the Swiss Academy of Humanities and Social Sciences (SAGW), CHF 500.-
- 03/2016 Recipient of travel grant for attending the Organizational Human Brain Mapping Conference and Educational Courses in Geneva (CH), funded by the Department of Psychology at the University of Zurich, CHF 1000.-
- 10/2015 Recipient of student scholarship for attending the 6<sup>th</sup> Aging and Speech Communication Research Conference in Bloomington (USA), funded by the conference committee, US Dollars 1000.-
- 07/2015 Recipient of travel grant for a research visit in the Department of Speech and Hearing Sciences at the University of Washington in Seattle, funded by the Jacobs Foundation, CHF 3791.-
- 09/2014 Recipient of travel grant for attending the international conference on auditory cortex in Magdeburg (D), funded by the Swiss Academy of Humanities and Social Sciences (SAGW), CHF 400.-
- 04/2014 Recipient of travel grant for attending the LIFE Spring Academy 2014 (International Max Planck Research School on the Life Course) in Charlottesville (USA), funded by the philosophical faculty of the University of Zurich, CHF 860.-

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**PEER-REVIEWED JOURNAL PUBLICATIONS**


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n.b.: The names of students under my (co-)supervision and my name appear underlined.

- Frei, V. & Giroud, N. (under review). *A short-term immersive auditory-cognitive training improves speech in noise perception in older adults with varying hearing acuity and working memory capacity*. Science of Learning.
- Perepelytsia, V., Giroud, N., Ramon, M., & Dellwo, V., (under review). *Listeners are biased towards young speakers and females when discriminating voices*. Cognitive Research: Principles and Implications.
- Frei, V. & Giroud, N. (under review). *Presenting natural continuous speech in a multisensory immersive environment improves speech comprehension and reflects the allocation of processing resources in neural speech tracking*. Journal of Cognitive Neuroscience.
- Bolt, E. & Giroud, N. (revised and resubmitted). *Neural encoding of linguistic cues in natural continuous speech is not affected by cognitive decline but decreases with increasing hearing impairment at word-level segmentation*. Scientific Reports.
- Frei, V., Schmitt, R., Meyer, M., & Giroud, N. (revised and resubmitted). *Visual speech cues enhance neural speech tracking in right auditory cluster leading to improvement in speech-in-noise comprehension in older adults with hearing impairment*. Trends in Hearing.

- Bolt, E. & Giroud, N. (2024). *Auditory encoding of natural speech at subcortical and cortical levels is not indicative of cognitive decline*. eNeuro. 11(5). <https://doi.org/10.5167/uzh-259574>
- Dörig, P. & Giroud, N. (2024). *Presbyacousie, existe-t-il un entrainement?* La gazette médicale, 13,1.
- Dörig, P. & Giroud, N. (2023). *Schwerhörigkeit im Alter*. Der informierte Arzt, 13, 11.
- Elmer, S. & Giroud, N. (2023). *Simultaneous Interpreting, Brain Aging and Cognition: A Review and Future Directions*. Special Issue "Cognitive Translation and Interpreting Studies in the Early Twenty First Century", eds. Garcia, A.M., Munoz, E., & Singer, N. Translation, Cognition, & Behavior, 6:2. Pp- 118-140.
- Sarant, J., Lemke, U., Giroud, N., Scherpiet, S., Weinstein, B. (2023). *Promoting hearing and cognitive health (well-being) in audiological rehabilitation for older adults*. International Journal of Audiology. <https://doi.org/10.1080/14992027.2023.2260099>
- Schmitt, R., Meyer, M., Giroud, N. (2023). *Improvements in naturalistic speech-in-noise comprehension in older adults with hearing impairment after three weeks of computer-based speechreading training*. npj Science of Learning, 8:32. <https://doi.org/10.1038/s41539-023-00179-6>
- Elmer, S., Schmitt, R., Giroud, N., Meyer, M. (2023). *The neuroanatomical hallmarks of chronic tinnitus in comorbidity with pure-tone hearing loss*. Brain Structure and Function. 228, 1511-1534. <https://doi.org/10.1007/s00429-023-02669-0>
- Elmer, S., Meyer, M., & Giroud, N. (2023). *A multidimensional characterization of the neurocognitive architecture underlying age-related temporal speech deficits*. NeuroImage. 278, 120285 <https://doi.org/10.1016/j.neuroimage.2023.120285>
- Giroud, N. & Seifert, A. (2023). *Vermindertes Seh- und Hörvermögen im stationären Pflegekontext*. NOVAcura, das Fachmagazin für Pflege und Betreuung. 54(5). <https://econtent.hogrefe.com/doi/pdf/10.1024/1662-9027/a000154>
- Elmer, S., Besson, M., Rodriguez-Fornells, A., Giroud, N. (2023). *Foreign Speech Sound Discrimination and Associative Word Learning Lead to a Fast Reconfiguration of Resting-State Networks*. NeuroImage. 271, 120026. <https://doi.org/10.1016/j.neuroimage.2023.120026>
- Neuschwander, P., Schmitt, R., Jagoda, L., Kurthen, I., Giroud, N., & Meyer, M. (2023). *Different Neuroanatomical Characteristics for low- and high-level Auditory Perception and Speech in Noise Comprehension in Older Adults*. European Journal of Neuroscience. 57(6). <https://doi.org/10.1111/ejn.15922>
- Schwab, S., Mouthon, M., Jost, L.B., Salvadori, J., Stefanos-Yakoub, I., Ferreira da Silva, E., Giroud, N., Perriard, B., Annoni, J-M. (2023). *Neural Correlates of lexical stress processing in a foreign free-stress language*. Brain and Behaviour 13,1. e2854. <https://doi.org/10.1002/brb3.2854>
- Al-Yawer, F., Pichora-Fuller, M.K., Wittich, W., Mick, P., Giroud, N., Rehan, S. & Phillips, N. (2023). *Sex-specific interactions between hearing and memory in older adults with Mild Cognitive Impairment: Findings from the COMPASS-ND study*. Ear & Hearing, 10.1097/AUD.0000000000001322 <https://doi.org/10.1097/AUD.0000000000001322>
- Kurthen, I., Christen, A., Meyer, M., & Giroud, N., (2022). *Older Adults' Oscillatory Brain Entrainment During Processing of Interrupted Speech Is a Function of Task Difficulty*. NeuroImage. 262, 119580. <https://doi.org/10.1016/j.neuroimage.2022.119580>
- Schmitt, R., Meyer, M., & Giroud, N. (2022). *Better speech-in-noise comprehension is associated with enhanced neural speech tracking in older adults with hearing impairment*. Cortex, 151, 133-146. <https://doi.org/10.1016/j.cortex.2022.02.017>
- Rehan, S., Giroud, N., Al-Yawer, F., Wittich, W., & Phillips, N. A. (2021). *Visual performance differs between older adults with (or at risk for) Alzheimer's disease but does not predict cortical atrophy in vision-related brain areas*. Journal of Alzheimer's Disease. <https://doi.org/10.3233/JAD-201521>
- Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., Rehan, S., & Phillips, N. A. (2021). *Hearing loss is associated with gray matter differences in older adults at risk for and with Alzheimer's disease*. Aging Brain, 1, 100018. <https://doi.org/10.1016/j.nbas.2021.100018>
- Giroud, N.\*, Keller, M.\*, & Meyer, M. (2021). *Interacting effects of frontal lobe neuroanatomy and working memory capacity to older listeners' speech recognition in noise*. Neuropsychologia. 158, 107892. <https://doi.org/10.1016/j.neuropsychologia.2021.107892> \*shared first authorship.
- Isler, B., Giroud, N., Hirsiger, S., Kleinjung, T., Meyer, M. (2021). *Bilateral age-related atrophy in the planum temporale is associated with vowel discrimination difficulty in healthy older adults*. Hearing Research, 406, 108252. <https://doi.org/10.1016/j.heares.2021.108252>
- Kliesch, M., Giroud, N., & Meyer, M. (2021). *EEG resting-state and event-related potentials as markers of learning success in older adults following second language training*. Brain Plasticity, 1-20. <https://doi.org/10.3233/BPL-200117>
- Sauppe, S., Choudhary, K.K., Giroud, N., Blasi, D.E., Norcliffe, E., Bhattamishra, S., Gulati, M., Egurtzegi, A., Bornkessel-Schlesewsky, I., Meyer, M., & Bickel, B. (2021). *Neural signatures of syntactic variation in speech planning*. PLOS Biology, 19(1), e3001038. <https://doi.org/10.1371/journal.pbio.3001038>



- Kurthen, I., Galbier, J., Jagoda, L., Neuschwander, P., Giroud, N., Meyer, M. (2021). *Selective Attention Modulates Neural Envelope Tracking of Informationally Masked Speech in Healthy Older Adults*. *Human Brain Mapping*, 1-16, <https://doi.org/10.1002/hbm.25415>
- Gullifer, J. W., Kousaie, S., Gilbert, A. C., Grant, A., Giroud, N., Coulter, K., Klein, D., Baum, S., Phillips, N., & Titone, D. (2021). *Bilingual language experience as a multidimensional spectrum: Associations with objective and subjective language proficiency*. *Applied Psycholinguistics*, 42(2), 245–278. <https://doi.org/10.1017/S0142716420000521>
- Schwab, S., Giroud, N., Meyer, M., & Dellwo, V. (2020). *Working memory and not acoustic sensitivity is related to stress processing ability in a foreign language: an ERP study*. *Journal of Neurolinguistics*, 55, 100897. <https://doi.org/10.1016/j.jneuroling.2020.100897>
- Giroud, N., Baum, S.R., Gilbert, A.C., Phillips, N.A., Gracco, V. (2020). *Earlier age of second language learning induces more robust speech encoding in the auditory brainstem in adults, independent of amount of language exposure during early childhood*. *Brain and Language*, 207, 104815. <https://doi.org/10.1016/j.bandl.2020.104815>
- Giroud, N., Keller, M., Hirsiger, S., Dellwo, V., & Meyer, M. (2019). *Bridging the brain structure – brain function gap in prosodic speech processing in older adults*. *Neurobiology of Aging*, 80, 116–126. <https://doi.org/10.1016/j.neurobiolaging.2019.04.017>
- Jagoda, L., Giroud, N., Neff, P., Kegel, A., Kleinjung, T., & Meyer, M. (2018). *Speech perception in tinnitus is related to individual distress level - A neurophysiological study*. *Hearing Research*, 367, 48-58. <https://doi.org/10.1016/j.heares.2018.07.001>
- Giroud, N., Lemke, U., Reich, P., Bauer, J., Widmer, S., & Meyer, M. (2018). *Are you surprised to hear this? Longitudinal spectral speech exposure in older compared to middle-aged normal hearing adults*. *European Journal of Neuroscience*, 47(1), 58-68. <https://doi.org/10.1111/ejn.13772>
- Giroud, N., Hirsiger, S., Muri, R., Kegel, A., Dillier, N., & Meyer, M. (2018)\*. *Neuroanatomical and resting state EEG power correlates of central hearing loss in older adults*. *Brain Structure and Function*, 223(1), 145-163. <https://doi.org/10.1007/s00429-017-1477-0> \*This paper won the Vontobel Prize for gerontological research in 2017.
- Giroud, N., Lemke, U., Reich, P., Matthes, K. L., & Meyer, M. (2017)\*. *The impact of hearing aids and age-related hearing loss on auditory plasticity across three months - An electrical neuroimaging study*. *Hearing Research*, 353, 162–175. <https://doi.org/10.1016/j.heares.2017.06.012> \*This paper was the 3<sup>rd</sup> most downloaded paper published in *Hearing Research* in February, March, and April 2018.
- Giroud, N., Lemke, U., Reich, P., Matthes, K. L., & Meyer, M. (2017). *Longitudinal auditory learning facilitates auditory cognition as revealed by microstate analysis*. *Biological Psychology*, 123, 25–36. <https://doi.org/10.1016/j.biopsycho.2016.11.007>

## PROCEEDINGS

- Schwab, S., Mouthon, M., Salvadori, J., Ferreira da Silva, E., Yakoub, I., Giroud, N., & Annoni, J-M. (2022). *Neural correlates and L2 lexical stress learning: an fMRI study*. *Proceedings Speech Prosody*.
- Pryss, R., Schobel, J., Hoppenstedt, B., Spiliopoulou, M., Langguth, B., Probst, T., Schlee, W., Reichert, M., Kurthen, I., Giroud, N., Jagoda, L., Neuschwander, P., Meyer, M., & Neff, P. (2019). *Ecological Momentary Assessment based Differences between Android and iOS Users of the TrackYourHearing mHealth Crowdsensing Platform*. *Conference Proceedings: Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference, 2019, 3951–3955*. <https://doi.org/10.1109/EMBC.2019.8857854>

## BOOK CHAPTERS

- Schwab, S., & Giroud, N. (2023). *Analyzing speech perception*. In Gygax, P., & Zufferey, S., (Eds.), *Handbook of Experimental Linguistics*. The Routledge Handbook.
- Meyer, M., Keller, M., & Giroud, N. (2018). *Suprasegmental speech prosody and the human brain*. In S. Frühholz & P. Belin (Eds.), *The Oxford Handbook of Voice Perception*. Oxford: Oxford University Press.
- Kliesch, M., Giroud, N., Pfenninger, S., & Meyer, M. (2017). *Research on Second Language Acquisition in Old Adulthood: What We Have and What We Need*. In D. Gabrys-Barker (Ed.), *The third age in second language acquisition* (pp. 48–76). Bristol: Multilingual Matters.

## PEER-REVIEWED PUBLISHED CONFERENCE ABSTRACTS

- Phillips, N., Al-Yawer, F., Giroud, N., Rehan, S., Pappadatos, Z., Mick, P., Wittich, W., Pichora-Fuller, M.K. (2020). *Sensory function, cognition, and brain structure in SCD, MCI, and AD: Initial findings from the COMPASS-ND Study*. *Alzheimer's & Dementia*, 16(S6). <https://doi.org/10.1002/alz.044056>

- Kegel A., Giroud N., Meyer M., Dillier N. (2017). *Differences in Supra-Threshold Auditory Function in Young and Elderly Normal Hearing Adults*. In: Deutsche Gesellschaft für Audiologie, 20. Jahrestagung, Aalen.
- Pellegrino, E., He, L., Giroud, N., Meyer, M., & Dellwo, V. (2017). *Rhythmic characteristics in aging: A study on Zurich German*. The Journal of the Acoustical Society of America, 141(5), 3747–3747. <https://doi.org/10.1121/1.4988256>
- Giroud, N., Hirsiger, S., Keller, M., Kegel, A., Dillier, N., Dellwo, V., & Meyer, M. (2017). *Central age-related hearing loss – An integrative view of brain structural, brain functional and audiometric data with a focus on prosody perception*. Journal of Hearing Science, 7(2 Supplement), 70.
- Giroud, N., I., Dellwo, V., & Meyer, M. (2013). *Don't let time outrun you: The influence of age on temporal information during speech processing*. Clinical EEG and Neuroscience, 44(4), E1-E121.

## OTHER PUBLICATIONS

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### Guideline publications

- Benz, E.\*, Eicher, S.\*, Feld, R. \*, Fuchs, B. \*, Gfeller, D.\*, Giroud, N.\*, Lehmann, S.\*, Lüscher, J.\*, Mantel, R. \*, Martin, M.\*, Müller, T.\*, Nieke, S.\*, Oswald, J.\*, Sonderegger, B. \*, Sturm, H. \*, Thalmann, W. \*, & Wartmann, U.\* (2017). *Participatorily developed criteria for good gerontological research* [Partizipativ entwickelte Richtlinien für gute gerontologische Forschung am Zentrum für Gerontologie]. Project description and online publication can be found here: [www.zfg.uzh.ch/de/Partizipative-Altersforschung.html](http://www.zfg.uzh.ch/de/Partizipative-Altersforschung.html). \*authors contributed equally

### Published theses

- Giroud, N. (2017). *Dynamics of Electrophysiology and Morphology in Older Adults with Age-related Hearing Loss*. PhD thesis at University of Zurich. Zurich: Zentralbibliothek Zürich.
- Giroud, N., (2013). *Speech Rhythm Decoding in the Auditory System of the Brain During Second Language Acquisition: Evidence from Behavioral and Electrophysiological Data*. Master thesis at University of Zurich. Zurich: Zentralbibliothek Zürich.

### Newsletter and newspaper articles

- Giroud, N., Thakur, S., & Iyer, P. (2021). *8 tech innovations that support a healthy ageing population*. Blog for the World Economic Forum (WEF). <https://www.weforum.org/agenda/2021/11/8-tech-innovations-that-support-a-healthy-ageing-population/>
- Giroud, N. (2020). *The future of age-related hearing loss treatment – a plea for a new interdisciplinary research field*. Newsletter article for the LIFE Community (the International Max Planck Research School «The Life Course: Evolutionary and Ontogenetic Dynamics»)
- Giroud, N. & Meyer, M. (2016). *Healthy ears, but still suffering from hearing loss?* [Trotz gesunden Ohren im Alter einen Hörverlust erleiden?]. Zeitschrift Dezibel, Dezember 2016.
- Guye, S. & Giroud, N. (2015). *University Research Priority Program Dynamics of Healthy Aging*. Newsletter article for the LIFE Community (the International Max Planck Research School «The Life Course: Evolutionary and Ontogenetic Dynamics»)

## ACADEMIC TEACHING

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|------------------------------|--|
| Fall, 2023/24                | <u>A Neuropsychological View on Speech and Language Disorders</u> . Interdisciplinary Master seminar (open for Linguistics and Language Technology students). Topics included: hearing loss, central auditory processing disorder, dyslexia, autism, ADHD, depression, psychosis, stuttering, TBI, aphasia, dementia, Parkinson's disease.   |
| Fall, 2021/22/23             | <u>Speech perception and the brain</u> . Interdisciplinary Master lecture (e.g., for Linguistics, Language Technology, Phonetics, and other disciplines; main lecturer Prof. Volker Dellwo), University of Zurich, elective.<br>Topics included: Acoustic cues of speech, variability of acoustic cues, para-linguistic information in speech, theories of speech perception, methods, auditory pathway, neural oscillations and speech, developmental aspects of speech, multi-modal speech perception, impairment of speech, evolution of speech perception. |
| Spring/Fall, 2022/23/24      | Interdisciplinary and inter-faculty <u>colloquium Language &amp; Medicine</u> (open for Linguistics and Medical scientists as well as clinicians and practitioners)  |
| Fall, 2021/22/23/24          | <u>The auditory system</u> . PhD lecture (one lecture) for the Zurich Center for Neuroscience PhD program., University of Zurich.  |
| Spring/Fall 2021/22/23/24/25 | <u>Neurobiology of Speech and Language</u> . Research colloquium for PhD students, University of Zurich.   |



Spring, 2022/23/24/25	<u>The neural foundation of speech</u> . Interdisciplinary Master lecture (e.g., open for Linguistics, Language Technology, Speech Sciences, and other disciplines), University of Zurich, elective
Spring/Fall 2021/22	<u>Phonetics and Speech Sciences</u> . Research colloquium for PhD students, University of Zurich.
Spring, 2019	<u>Developmental Psychology</u> . Invited guest lecturer (one lecture) for undergraduates Psychology, Concordia University.
Fall, 2017	<u>Neurolinguistics</u> . Invited lecturer for interdisciplinary students and faculty. (One-day workshop), University of Zurich, elective.
Spring, 2016	<u>Neuropsychology</u> . Bachelor lecture in Psychology, two lectures, University of Fribourg, elective.
Spring, 2016	<u>Neurocognition of speech and language</u> . Master seminar in Psychology, University of Zurich, elective. Topics included: Neural lateralization, neuroanatomy, spectra and formants, from acoustics to language, speaking monkeys, neurobiological models of speech and language, neural oscillations, aging auditory system and hearing loss, language development, bilingualism, dyslexia, mirror neurons and language
Spring, 2015	<u>Neuroplasticity across the lifespan</u> . Master seminar in Psychology, University of Zurich, elective Topics included: Challenges in the field, neuroimaging methods, anatomical changes across the lifespan, nature vs. nurture, neuromodulation and -stimulation, functional plasticity across the lifespan, models of neuroplasticity in aging, autism spectrum disorder, individual changes across the lifespan (due to hormonal changes, drugs), sex differences, brain jogging, hearing in old age, tinnitus.
Spring, 2014/15	<u>Experimental psychology</u> . Bachelor seminar in Psychology., University of Zurich, required.
Spring, 2014	<u>EEG preprocessing</u> . Interdisciplinary doctoral seminar (Half-day workshop), University of Zurich, elective.

## ORGANIZATION OF CONFERENCES

09/2018	<u>Symposium chair and organizer</u> (2018, September). <i>Auditory processing in older adults: Exploring the potential of EEG to quantify age-related auditory neurocognitive decline and to evaluate training outcome</i> . Symposium at the Joint Meeting of the ECNS, ISNIP, ISBET, and the ISFSI, Pittsburgh, USA.
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## APPLICATIONS PROFESSOR POSITIONS

Fall, 2021	Position offered. Permanent tenure-track assistant professor position “Multi-Sensory Speech Perception or Multi-Sensory Signal Processing for Hearing Technology” at the Department of Health Technology, Section Hearing Systems at the Technical University in Denmark (DTU). Declined in favor of professor ad personam (PaP) application process starting in 2024 at Medical Faculty/Psychiatric University Hospital at UZH.
Fall, 2017	Second place. Tenure-track assistant professor position “Sensory and Cognitive Aging” at Department of Psychology at Concordia University, Montréal, Canada.

## SUPERVISION OF JUNIOR RESEARCHERS

### Postdocs/senior researchers supervision, 2022-ongoing

Stefan Elmer (May 2022-ongoing).

### PhD theses supervision

Ongoing, 2019-ongoing:

Julian Ockelmann (Computational Neuroscience of Speech & Hearing, UZH). Since January 2023. Benefits of auditory-cognitive training (Act!) for hearing rehabilitation and cognitive functioning in older hearing impaired

Vanessa Frei (Computational Neuroscience of Speech & Hearing, UZH). Since June 2021. Naturalistic multisensory immersion as a platform for studying the association between auditory perception and cognition in older adults with hearing impairment.

Elena Bolt (Computational Neuroscience of Speech & Hearing, UZH). Since May 2021. Predicting cognitive impairment through the aging ear.

Valeriia Perepelytsia (Phonetics & Speech Sciences, UZH). Since November 2019. Neural processing of prosodic aspects of speaker identity.

Completed, 2022-23:

Raffael Schmitt (Computational Neuroscience of Speech & Hearing, UZH). Since June 2020. Improving communication in older hearing impaired via a naturalistic multisensory training intervention

Florine Bachmann (Department of Health Technology, Technical University of Denmark). (Sub)cortical speech processing in Mandarin speakers.

Completed, 2016-19:

Benjamin Isler (Medical Faculty, UZH). The influence of presbycusis on the processing of vowels in the brain.

Laura Jagoda (Department of Psychology, UZH). The interaction between cognition and speech perception in tinnitus patients.

Ira Kurthen (Department of Psychology, UZH). Hearing loss and cognition in old age: A fine-grained investigation of speech processing under adverse listening conditions.

### **PhD committees**

Maria Tsilimos (Department of Computational Linguistics). 2023. Chair.

Arrate Isasi-Isasmendi Ladaluze (Department of Comparative Language Science). 2023. Examiner.

Huw Swanborough (Department of Psychology). 2024. Chair.

Chantal Oderbolz (Department of Comparative Language Science). 2024. Chair.

Maha Wybitul (Department of Regenerative Medicine). 2024. Chair.

### **Master theses**

Ongoing:

Nadine Jait (Psychology, UZH).

Sarah Baur (Digital Linguistics, UZH).

Daniela Saito Vrbova (Psychology, UZH).

Hao Cui (Linguistics, UZH).

Fei Gao (Linguistics, UZH).

Liliane Bär (Psychology, UZH).

Alina Gopurathingal (Psychology, UZH).

Fabian Cabalzar (Psychology, UZH).

Veronica Girolimetti (Digital Linguistics, UZH).

Completed:

Andrea Santos Revilla (Language Technology, UZH). Detecting MCI in older adults from speech using machine learning.

Nadia Frei (Department of Psychology, UZH). Predicting cognitive status in older adults from resting state EEG data.

Varvara Stein (Monomaster Linguistics, UZH). Speaking adaptations in difficult listening situations in adults with autism spectrum disorder.

Siwei An (Monomaster Linguistics, UZH). The neural foundation of prosody perception in hearing impaired older adults.

Katarina Kliestenec (Department of Psychology, UZH). Neural processing of voice in older adults.

Julian Ockelmann (Department of Psychology, UZH). Benefits of gamification in auditory-cognitive trainings for older hearing impaired.

Nataliya Fartdinova (Monomaster Linguistics, UZH). Voice perception in older adults with hearing impairment.

Sana Rehan (Department of Psychology, Concordia University). Visual impairment and its relationship with brain structure in older individuals with SCI, MCI, and AD.

Allison Christen (Department of Psychology, UZH). On central hearing loss and top-down vs bottom-up processing.

Jelena Wehrli (Department of Psychology, UZH). Multisensory speech integration in older adults with hearing loss.

Maria Kliesch (English Seminar, UZH). Neuroplasticity during language learning in older adults.

Julia Bauer (Department of Psychology, UZH). Where are you from? The processing of salient features of Swiss dialects in the brain.

Raphaela Muri (Department of Psychology, UZH). The relationship between auditory acuity and anatomy in the auditory cortex in older adults with mild age-related hearing loss.

Susann Widmer (Department of Psychology, UZH). Age-related differences in the processing of spectral speech information.

Ira Kurthen (Department of Psychology, UZH). Neural processing of rapidly changing cues in the speech signal.

Matthias Keller (Department of Psychology, UZH). The neurofunctional processing of prosodic speech information.

### **Bachelor theses**

Completed:

Tarek Alakmeh. (Department of Computer Science). Predicting code difficulty using eye-tracking and EEG.

### **Research assistants and interns, 2021-ongoing**

Andreas Säuberli, Andrea Santos Revilla, Elainne Vibal, Hsun-Hui Lin (from University of Konstanz), Ahmet Usulu, Nataliya Fartdinova, Arne Hansen, Julian Ockelmann

### **Interns, 2013-17**

Gabrielle Jost-Souto. Corina Sager. Anja Betschart. Annina Arquint. Julia Bauer. Florine Bachmann. Jan Juchli. Nora Werner. Belinda Berweger.

### **Matura (high school) theses, 2013-16**

Sijamini Baskaralingam. Marika Mitsui.

### **Other types of mentoring, 2020-today**

Botschafterin Chancenblick zum Thema Gesundheit. Universität Zürich. 2023.

Mentor in the *Réseau romand de mentoring pour femmes*, a scientific career mentoring program of the Francophone Swiss Universities and the Technical University EPF Lausanne. 2020.

Panel discussion member for future female applicants of SNF-PRIMA fellowships about how to create successful applications. 2020.

## **ORAL CONTRIBUTIONS**

n.b.: The names of students and interns under my (co-)supervision appear underlined. In addition, my name appears underlined in bold.

### **Symposium chair**

Giroud, N. (2018, September). *Auditory processing in older adults: Exploring the potential of EEG to quantify age-related auditory neurocognitive decline and to evaluate training outcome*. Joint Meeting of the ECNS, ISNIP, ISBET, and the ISFSI, Pittsburgh, US

Klejung, T. & Giroud, N. (2024, September). *Biomarkers for a better assessment of disorders of hearing, speech and language in different medical fields*. Workshop at the annual Center for Neuroscience (ZNZ) symposium, University of Zurich.

### **Invited talks**

Giroud, N. (2024, October). *EEG to detect language pathology and cognitive decline in aging*. Symposium EEG 100 years. Department of Psychiatry, University of Zurich.

- Giroud, N. (2024, October). *Why we do not hear with our ears but with our brain, especially in old age*. University for Senior Citizens Liechtenstein.
- Giroud, N. (2024, October). *Why we do not hear with our ears, but with our brain, especially in old age*. University for Senior Citizens Winterthur.
- Giroud, N. (2024, October). *Why we do not hear with our ears but with our brain, especially in old age*. University for Seniors Zurich.
- Giroud, N. (2024, September). *Hearing and the brain: Brain training against hearing loss? New findings from brain research*. Lecture at Akustika, online.
- Giroud, N. (2024, September). *Dementia and language*. Lecture on health and language at the University of Bern.
- Giroud, N. (2024, May). *Neurological foundations of speechreading*. Invited talk for professional education for audiology trainees from Pro Audito Schweiz, Zurich, Switzerland.
- Giroud, N. (2024, March). *The Basics of why the senses matter for cognitive health and dementia risk*. Panel discussion for The first Basics webinar from the ISTAART sensory health and cognition PIA. Online.
- Giroud, N. (2024, March). *Sprache als Marker und Interventionsmöglichkeit bei einer beginnenden Demenz*. Psychiatrisches Kolloquium. Zurich, Switzerland.
- Giroud, N. (2023, November). Podium discussion at LiZZ Gespräche on «*Inclusion and diversity and language*». University of Zurich, Switzerland.
- Giroud, N. (2023, October). *Healthy Aging*. Invited talk for event “Humor im Kopf. Die packende Wissenschaft & Praxis von Humor und Glück“ organized by Hirncoach.ch with Dr. Barbara Studer, Adolf Ogi and Rob Spence. Lenzburg, Switzerland.
- Giroud, N. (2023, October). *Improving speech communication in healthy and pathological aging*. Invited talk for the Center for interdisciplinary study of language evolution. University of Zurich, Zurich, Switzerland.
- Giroud, N. (2023, August). *Behavioral and neural plasticity in the aging auditory system in health and dementia-risk following app-based training*. Invited presentation at the International Symposium on Auditory and Audiological Research ISAAR conference, Nyborg, Denmark.
- Giroud, N. (2023, June). *Lip reading and hearing training from a neuroscientific view*. Invited talk for professional education for audiology trainees from Pro Audito Schweiz, Zurich, Switzerland.
- Giroud, N. (2023, May). *Hören und Gehirn*. Invited talk for a webinar for HirnCoach AG, Zurich, Switzerland.
- Giroud, N. (2023, March). *Hearing loss and dementia. Facts and myths [Hörverlust und Demenz: Fakten und Mythen]*. Invited presentation for webinar at World Day of Hearing for Pro Audito, Zurich, Switzerland.
- Giroud, N. (2023, March). Invited presentation for the annual anniversary of the Swiss Academy of Medical Sciences, Casino, Bern, Switzerland.
- Giroud, N. (2022, November). *Gut hören = gesundes Gehirn? [Hearing well = healthy brain?]*. Invited talk for Public Event Universitäre Altersmedizin University of Zurich.
- Giroud, N. (2022, October). Invited podium discussant “die vielen Facetten des Alterns” [the many facets of aging] for the Developmental Science Network Zurich.
- Meyer, M., & Giroud, N. (2022, July). *Speech prosody and the brain*. Invited talk at the workshop “Behavioral and neuroimaging methods used in the study of L1 and L2 stress perception”, University of Fribourg, Fribourg, Switzerland.
- Giroud, N. (2022, July). *Hearing loss as a risk factor for health problems at the workplace*. Invited workshop for Credit Suisse Bank, Zurich, Switzerland.
- Giroud, N. (2022, June). *Non-pharmacological interventions and prevention for healthy longevity*. Invited talk and guest at the World Economic Forum’s Davos’22 (WEF): Longevity Investors Lunch (private event)
- Giroud, N. (2021, Sept). *Is hearing loss a risk factor of dementia?* Invited presentation for the Max Planck Research School on the Life Course, University of Zurich, Switzerland.
- Giroud, N. (2021, Sept). *Is hearing loss a risk factor of dementia? The role of the brain in the hearing-cognition association*. Invited presentation for the ZNZ Symposium, Neuroscience Center Zurich, Switzerland.
- Giroud, N. (2021, Sept). *Disruptions in language processing*. Invited keynote for opening ceremony of the Linguistic Research Infrastructure (LiRi) at University of Zurich, Zurich, Switzerland.
- Giroud, N. (2021, Sept). *The influence of hearing loss onto cognition and the brain [Der Einfluss von Hörverlust auf Kognition und Gehirn]*. Invited talk for Sonova Retail Germany, GEERS Gutes Hören, virtual.
- Giroud, N. (2021, August). *Hearing loss and dementia. Facts and myths [Hörverlust und Demenz: Fakten und Mythen]*. Invited talk for Pro Audito Schweiz. Zurich, Switzerland.
- Giroud, N. (2021, March). *The impact of hearing loss onto the brain*. Invited talk for the Sonova Virtual Webinar on Hearing and Cognition. Sonova, Stäfa, Switzerland.
- Giroud, N. (2019, December). *Healthy brain until old age [Fittes Gehirn bis ins hohe Alter]*. Invited talk at the Fachhochschule Nordwestschweiz, Brugg, Switzerland.

- Giroud, N. (2017, July). *We do not hear with the ear, but with the brain* [Wir hören nicht mit dem Ohr sondern mit dem Hirn]. Invited talk at the Volkshochschule Stäfa, Stäfa, Switzerland.
- Giroud, N. (2017, June). *Physical activity, healthy aging, and the brain*. [Fitness, gesundes Altern und das Gehirn]. Invited talk for the annual meeting of the Academic Sports Association Zurich, Zurich, Switzerland.
- Giroud, N. (2017, May). *Hearing is exhausting when you are older*. [Hören wird für das Gehirn im Alter anstrengender]. Invited talk to the Schweizerischer Hörakustikerverein. Fribourg, Switzerland.
- Giroud, N. (2017 February). *Defining central presbycusis: The relation between brain structure, brain function and behavior in older adults*. Invited Talk at the weekly group meeting of Department of Auditory Neuroscience, Institute of Experimental Medicine, Academy of Sciences in Czech Republic, Prague, Czech Republic.
- Giroud, N. (2017, January). *Die Sprache des alternden Gehirns* [The Language of the Aging Brain]. Invited talk for Rotary Club in Bern, Switzerland.
- Giroud, N., & Kegel, A. (2016, November). *Lower speech intelligibility in older adults - The aging ear or brain?* Invited talk for the ARCHES Meeting, Zurich, Switzerland.
- Giroud, N. (2016, May). *Sport & Gehirn* [Sport and the brain]. Invited talk for Swiss Ski Conference organized by Swiss Ski at the Swiss Paraplegic Foundation in Nottwil, Switzerland.
- Giroud, N., Lemke, U., & Meyer, M. (2016, May). *Longitudinal auditory plasticity in older hearing aid users*. Invited talk for the Symposium Audition, Cognition, and Aging at the Conference Psychology and the Brain [Psychologie und Gehirn], Berlin, Germany.
- Giroud, N. (2016, April). *Sport & Gehirn* [Sport and the brain]. Invited talk for the semi-annually public lecture “Sport & ...” organized by the Academic Sports Association Zurich at the ETH Zurich, Zurich, Switzerland.
- Giroud, N. (2016, February). *Dynamics of Electrophysiology during Speech Processing and Morphology in Healthy Older Adults*. Invited talk at the group meeting of the National Center for Rehabilitative Auditory Research (NCRAR) at U.S. Department of Veterans Affairs, Portland, USA.
- Giroud, N. (2016, February). *The Phonak study: Dynamics of Electrophysiology during Speech Perception in Older Hearing Aid Users*. Invited talk at the group meeting of the Brain and Behavior (B&B) Lab at the University of Washington, Seattle, USA.
- Giroud, N. (2016, January). *Dynamics of Electrophysiology during Speech Perception and Morphology in Older Adults with Age-Related Hearing Loss*. Invited talk at the group meeting of the Cognition, Aging, and Psychophysiology (CAP) Lab at Concordia University, Montréal, Canada.
- Giroud, N. (2015, October). *Neurophysiology and intervention in adults with age-related hearing loss and hearing aids*. Invited talk at the colloquium of the research unit of Cognitive and Neural Dynamics of Memory at the Max Planck Institute for Human Development, Berlin, Germany.
- Giroud, N. & Meyer, M. (2014, September). *Dynamic functional lateralization during speech processing. Developing a paradigm to investigate speech processing in older adults*. Invited talk for the INAPIC Fall Workshop, Zurich, Switzerland.

## Talks

- Giroud, N. (2024, October). *Warum wir gerade im höheren Alter nicht mit den Ohren, sondern mit dem Gehirn hören*. Seniorenuniversität University of Zurich, Switzerland.
- Frei, V. & Giroud, N. (2024, June). *Modulating Speech Processing in Aging: The Interplay of Memory Load, Immersion, and Neural Dynamics*. 7<sup>th</sup> International Conference on Cognitive Hearing Science for Communication (CHSCOM). Linköping, Sweden.
- Bolt, E. & Giroud, N. (2023, November). *Speech Processing in the Brain at Risk for Cognitive Impairment*. International Max Planck Research School on the LIFE course. University of Zurich, Switzerland.
- Frei, V. & Giroud, N. (2023, November). *Beyond Auditory-cognitive Trainings: Using Stereoscopic Virtual Reality to Improve Speech Comprehension in Older Individuals with Hearing Loss*. International Max Planck Research School on the LIFE course. University of Zurich, Switzerland.
- Perepelytsia, V., Giroud, N., Aras, T., Meyer, M., & Dellwo, V., (2022, July). *Neural underpinnings of familiar talker advantage: an EEG study*. International association for forensic phonetics and acoustics, Prague. Czech Republic.  
\*This presentation won first place for the innovative research prize at the conference.
- Frei, V., Meyer, M., & Giroud, N. (2022, June). *The facilitative role of visual speech cues in older individuals with hearing impairment – how is audio-visual speech processed in hearing aid users?* 6<sup>th</sup> International Conference on Cognitive Hearing Science for Communication (CHSCOM). Linköping, Sweden.
- Bachmann, F., Giroud, N. & Hjortkjaer, J. (2022, June). *Enhanced cortical neural tracking of speech in age-related hearing loss is not driven by stimulus level amplification?* 6<sup>th</sup> International Conference on Cognitive Hearing Science for Communication (CHSCOM). Linköping, Sweden.



- Giroud, N. (2021, April). *The impact of age-related hearing loss on neural speech tracking*. International Online Workshop on Language in Healthy and Pathological Aging (AGELANG), virtual conference.
- Sauppe, S., Norcliffe, E., Choudhary, K.K., Konopka, A. E., Egurtzegi, A. M., Giroud, N., Bhattamishra, S., Gulati, M., Garrido, G., Blasi, D.E., Bornkessel-Schleswesky, I., Laka, I., Meyer, M., Levinson, S.C., & Bickel, B. (2021, February). *Case marking shapes the time-course of sentence planning: Crosslinguistic evidence from Hindi, Yéll Dnye, Japanese, Basque and Swiss German*. 43. Deutsche Gesellschaft für Sprachwissenschaft-Jahrestagung. Freiburg, Germany.
- Sauppe, S., Choudhary, K., Giroud, N., Blasi, D.E., Bhattamishra, S., Gulati, M., Egurtzegi, A., Bornkessel-Schleswesky, I., Meyer, M., & Bickel, B. (2019, August). *Partial overlap of syntactic configurations between sentences affects oscillatory activity during sentence planning in the brain*. Societas Linguistica Europaea. Leipzig, Germany.
- Pryss, R., Schlee, W., Reichert, M., Kurthen, I., Giroud, N., Jagoda, L., Neuschwander, P., Meyer, M., Neff, P., Schobel, J., Hoppenstedt, B., Spiliopoulou, M., Langguth, B., Probst, T. (2019, July). *Ecological Momentary Assessment based Differences between Android and iOS Users of the TrackYourHearing mHealth Crowdsensing Platform*. 41st Annual International Conference of the IEEE Engineering in Medicine & Biology Society. Berlin, Germany.
- Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., Rehan, S., & Phillips, N. A. (2019, June). *Age-related hearing loss and cortical atrophy in older adults with (or at risk for) dementia: How strong is the relationship?* 5th International Conference on Cognitive Hearing Science for Communication (CHSCOM), Linköping, Sweden.
- Kurthen, I., Christen, A., Profant, O., Bures, Z., Meyer, M., Giroud, N. (2019, May). *Restoration of missing auditory input is related to alpha desynchronization*. LIFE Academy of the Max Planck Research School on the life course. Michigan, USA.
- Giroud, N., Baum, S.R., Phillips, N.A., Gracco, V. (2019, March). *Auditory brainstem responses to English vowels in English-French simultaneous and early bilinguals*. Montréal Bilingual Brain Symposium. Montréal, Canada.
- Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., Rehan, S., & Phillips, N. A. (2019, February). *Age-related hearing loss and cortical atrophy in older adults with (or at risk for) dementia: How strong is the relationship?* Annual conference of the Centre for Research on Human Development (CRDH), Montréal, Canada.
- Kliesch, M., Giroud, N., Pfenninger, S., & Meyer, M. (2018, September). *Cognition and beta-oscillations at rest predict L2 development in third age*. Cognitive Neuroscience of Second and Artificial Language Learning, CoNSALL, Wales, UK.
- Giroud, N., Herbert, M., & Phillips, N.A. (2018, May). *Does lip reading make speech comprehension easier for everyone? Electrophysiological evidence on interindividual differences in younger and older adults*. Joint Meeting of the ECNS, ISNIP, ISBET, and the ISFSI, Pittsburgh, USA.
- Giroud, N., Herbert, M., & Phillips, N.A. (2018, May). *Does lip reading make speech comprehension easier for everyone? Electrophysiological evidence on interindividual differences in younger and older adults with varying working memory capacity*. Talk at the engAGE student symposium, Montreal, QC, Canada.
- Pellegrino, E., He, L., Giroud, N., Meyer, M., & Dellwo, V. (2017, July). *Age-related rhythmic variations: an investigation on Zurich German*. Talk at the 16th Rhythm Production and Perception Workshop, Birmingham, England.
- Giroud, N., Hirsiger, S., Keller, M., Kegel, A., Dillier, N., Dellwo, V., Meyer, M. (2017, June). *Central age-related hearing loss – An integrative view of brain structural, brain functional and audiometric data with a focus on prosody perception*. Talk at the European Federation of Audiology Societies EFAS, Interlaken, Switzerland.
- Kurthen, I., Giroud, N., Dellwo, V., Meyer, M. (2017, June). *Temporal fine structure processing in older adults: beyond the syllable boundary*. Talk at the 4th International Conference on Cognitive Hearing Science for Communication, Linköping, Sweden.
- Pellegrino, E., He, L., Giroud, N., Meyer, M., & Dellwo, V. (2017, June). *Rhythmic characteristics in aging: a study on Zurich German*. Talk at the Conference of the Acoustical Society of America, Boston, USA.
- Kegel, A., Lai, W.-K., Giroud, N., Meyer, M., & Dillier, N. (2017, February). *Unterschiede in auditorischen Profilen in jüngeren und älteren normalhörenden Erwachsenen*. Talk at the Jahrestagung der Deutschen Gesellschaft für Audiologie, Aachen, Germany.
- Giroud, N., Lemke, U., & Meyer, M. (2015, September). *Longitudinal improvement of speech discrimination evidences the efficacy of top-down plasticity as revealed by electrical neuroimaging*. Talk at the International Conference on Basic and Clinical Multimodal Imaging BACI, Utrecht, Netherlands.
- Giroud, N. (2015, May). *Cognitive hearing: Neurophysiology and intervention in adults with age-related hearing loss*. Talk at the LIFE Spring Academy, Ann Arbor, USA.
- Hasse, A. \*, Leemann, A., Giroud, N. \*, & Meyer, M. (2014, June). *Entsteht linguistische Salienz im Gehirn?*. [Is linguistic salience developed in the brain?] 8th Days of Swiss Linguistics, Zurich, Switzerland. \*authors contributed equally

**Poster presentations**

- Perepelytsia, V., Giroud, N., Meyer, M. & Dellwo, V. (2024, August). *Neural correlates of voice familiarity and identity: an EEG study.* VoiceID conference on voice identity. Universität Marburg, Germany.
- Elmer, S., Meyer, M. & Giroud, N. (2024, June). *A multidimensional characterization of the neurocognitive architecture underlying age-related temporal speech processing.* 7<sup>th</sup> International Conference on Cognitive Hearing Science for Communication (CHSCOM). Linköping, Sweden.
- Bolt, E. & Giroud, N. (2024, June). *Neural tracking of contextual vs. random sentences in older adults: Insights from EEG markers in cognitive decline.* 7<sup>th</sup> International Conference on Cognitive Hearing Science for Communication (CHSCOM). Linköping, Sweden.
- Ockelmann, J., Scherpiet, S., Stropahl, M., & Giroud, N. (2024, June). *Effects of adaptive computer-based auditory cognitive training: A neuroscientific approach.* 7<sup>th</sup> International Conference on Cognitive Hearing Science for Communication (CHSCOM). Linköping, Sweden.
- Santos Revilla, A., Pellegrino, E., Bolt, E., Kodrasi, I., Giroud, N. *Classifying MCI patients with and without hearing loss from speech using machine and deep learning methods.* 8<sup>th</sup> Burghölzli Psychiatry Meeting, Zurich, Switzerland.
- Ockelmann, J., Scherpiet, S., Stropahl, M., & Giroud, N. (2024, March). *Effects of adaptive computer-based auditory cognitive training: A neuroscientific approach.* 8<sup>th</sup> Burghölzli Psychiatry Meeting, Zurich, Switzerland.
- Bolt, E. & Giroud, N. (2024, March). *Unraveling linguistic clues: Auditory neural encoding of natural speech as potential marker of cognitive decline.* 8<sup>th</sup> Burghölzli Psychiatry Meeting, Zurich, Switzerland.
- Frei, V. & Giroud, N. (2024, March). *Supporting speech comprehension in ageing: The impact of an immersive environment on behavioral and neural correlates of spoken communication.* 8<sup>th</sup> Burghölzli Psychiatry Meeting, Zurich, Switzerland.
- Elmer, S. & Giroud, N. (2024, March). *Benefits of hearing aids in older adults with dementia-risk.* 8<sup>th</sup> Burghölzli Psychiatry Meeting, Zurich, Switzerland.
- Schmitt, R., Elmer, S., & Giroud, N. (2023, August). *Neural Dynamics of Lip Contour Tracking in Older Adults.* International Max Planck Research School on the LIFE course, University of Zurich, Switzerland.
- Ockelmann, J., Stropahl, M., Scherpiet, S., & Giroud, N. (2023, August). *Neurofunctional Effects of Adaptive Computer-based Auditory Cognitive Training In Hearing-impaired Older Adults.* International Max Planck Research School on the LIFE course, University of Zurich, Switzerland.
- Ockelmann, J., Stropahl, M., Scherpiet, S., & Giroud, N. (2023, August). *Effects of adaptive computer-based auditory cognitive training: A neuroscientific approach.* International Symposium on Auditory and Audiological Research ISAAR conference, Nyborg, Denmark.
- Frei, V. & Giroud, N. (2023, August). *Beyond computer-based auditory-cognitive training: Using stereoscopic virtual reality to improve speech comprehension in older adults with hearing loss.* International Symposium on Auditory and Audiological Research ISAAR conference, Nyborg, Denmark.
- Ockelmann, J., Stropahl, M., Scherpiet, S., Giroud, N. (2023, August). *Effects of adaptive computer-based auditory cognitive training: A neuroscientific approach.* International Symposium on Auditory and Audiological Research ISAAR conference, Nyborg, Denmark.
- Santos Revilla, A., Pellegrino, E., Bolt, E., Kodrasi, I., Giroud, N. *Classifying MCI patients with and without hearing loss from speech using machine and deep learning methods.* Interspeech, Dublin, Ireland.
- Bolt, E., & Giroud, N. (2023, July). *Subcortical and cortical processing of speech in the brain at risk for cognitive impairment.* International Symposium on Auditory and Audiological Research ISAAR conference, Nyborg, Denmark.
- Frei, V. & Giroud, N. (2023, July). *The potential of immersive auditory-cognitive training as a platform for studying hearing-loss and cognitive decline.* Alzheimer's Association International Conference, Amsterdam, Netherlands.
- Bolt, E., & Giroud, N. (2023, August). *Testing the diagnostic potential of speech processing markers in the brain at risk for dementia.* Alzheimer's Association International Conference, Amsterdam, Netherlands.
- Ockelmann, J., Scherpiet, S., Stropahl, M., Giroud, N. (2023, July). *Effects of adaptive computer-based auditory cognitive training: A neuroscientific approach.* Salzburg Mind Brain Annual Meeting (SAMBA) 2023. Salzburg, Austria.
- Bolt, E. & Giroud, N. (2022, June). *Speech processing in the brain at risk for dementia.* 6<sup>th</sup> International Conference on Cognitive Hearing Science for Communication (CHSCOM). Linköping, Sweden.
- Schmitt, R., Meyer, M., & Giroud, N. (2022, June). *A computer-assisted speechreading training improves audiovisual speech perception in noise.* 6<sup>th</sup> International Conference on Cognitive Hearing Science for Communication (CHSCOM). Linköping, Sweden.
- Frei, V., & Giroud, N. (2022, June). *Neural speech tracking in age related hearing loss as a function of hearing aid use.* HEaring Across the Lifespan (HEAL), Lake Como, Italy.

- Schmitt, R., Meyer, M., & Giroud, N. (postponed: 2022, June). *Pure-tone hearing loss is associated with envelope tracking in the aging brain*. HEaring Across the Lifespan (HEAL), Lake Como, Italy.
- Frei, V., & Giroud, N. (2022, January). *Neural speech tracking in age related hearing loss as a function of hearing aid use*. 13th Speech in Noise Workshop (SPIN), virtual meeting.
- Schmitt, R., Meyer, M., & Giroud, N. (2021, June). *Pure-tone hearing loss is associated with envelope tracking in the aging brain*. Human Brain Mapping Annual Conference, Virtual Conference.
- Al-Yawer, F., Pichora-Fuller, K., Wittich, W., Mick, P., Giroud, N., Rehan, S., & Phillips, N. (2021, March). *Sex-specific interactions between hearing and memory in older adults with Mild Cognitive Impairment: Findings from the COMPASS-ND study*. 2021 Rotman Research Institute Conference on Aging & Brain Health, Toronto, Canada, virtual conference.
- Rehan, S., Giroud, N., Al-Yawer, F., Wittich, W., Phillips, N. (2021, March). *Visual performance differs between older adults with (or at risk for) Alzheimer's disease but does not predict cortical atrophy in vision-related brain areas*. 2021 Rotman Research Institute Conference on Aging & Brain Health, Toronto, Canada, virtual conference.
- Schmitt, R., Neuschwander, P., Meyer, M., & Giroud, N. (2020, October). *Hearing Loss Is Associated with Cortical Decline in Auditory- and Language-Related Areas in Older Adults - A Surface-Based Morphometry Study*. Twelfth Annual Meeting for the Society for the Neurobiology of Language (SNL), Philadelphia, USA, virtual conference.
- Schmitt, R., Neuschwander, P., Meyer, M., & Giroud, N. (2020, September). *Hearing Loss Is Associated with Cortical Decline in Auditory Areas in Older Adults - A Surface-Based Morphometry Study*. Zentrum für Neurowissenschaften Zürich (ZNZ) Annual Symposium 20, Zurich, Switzerland, virtual conference.
- Gullifer, J., Kousaie, S., Gilbert, A., Grant, A., Giroud, N., Coulter, K., Klein, D., Baum, S., Phillips, N., Titone, D. (2020, September). *Quantifying bilingual language experience as a complex, socially dynamic spectrum. Architectures and Mechanisms for Language Processing*, Potsdam, Germany, virtual conference.
- Phillips, N., Al-Yawer, F., Giroud, N., Rehan, S., Pappadatos, Z., Mick, P., Wittich, W., & Pichora-Fuller, K. (2020, July). *Sensory function, cognition, and brain structure in SCD, MCI, and AD: Initial findings from the COMPASS-ND study*. Alzheimer's association international conference AAIC20, virtual conference.
- Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., Rehan, S., & Phillips, N. A. (2019, October). *Hearing loss is associated with hippocampal atrophy in older adults at risk for dementia*. 10th Canadian Conference on Dementia (CCD), Québec City, Canada.
- Al-Yawer, F., Pichora-Fuller, M.K., Mick P., Wittich, W., Giroud, N., Rehan, S., & Phillips, N. (2019, October). *Sensory loss and cognitive function in older adults at different stages of cognitive impairment*. Poster presented at the 10th Canadian Conference on Dementia (CCD), Québec City, Canada.
- Gullifer, J., Kousaie, S., Gilbert, A., Giroud, N., Grant, A., Coulter, K., Klein, D., Baum, S., Phillips, N., Titone, D. (2019, August). *Language entropy: A novel quantification of language experience among bilinguals*. Eleventh Annual Society for the Neurobiology of Language Conference, Helsinki, Finland.
- Isler, B., Giroud, N., Meyer, M. (2019, June). *Die altersbedingte Atrophie des rechten Planum temporale beeinflusst die Verarbeitung von spektralen Informationen der Sprache*. 106. Frühjahrsversammlung der Schweizerischen Gesellschaft für Oto-Rhino-Laryngologie, Hals- und Gesichtschirurgie, Davos, Switzerland. *\*This poster won first place for the poster prize of the conference.*
- Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., Rehan, S., & Phillips, N. A. (2019, May). *Age-related hearing loss and cortical atrophy in older adults with (or at risk for) dementia: How strong is the relationship?* 10<sup>th</sup> Annual LDI Scientific Retreat, Montreal, QC, Canada.
- Rehan, S., Giroud, N., Wittich, W., Al-Yawer, F., & Phillips, N. A. (2019, May). *The Relationship Between Hearing Loss and Visual Impairment in Subjects with Cognitive Decline*. 10<sup>th</sup> Annual LDI Scientific Retreat, Montreal, QC, Canada.
- Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., Rehan, S., & Phillips, N. A. (submitted). *Age-related hearing loss and cortical atrophy in older adults with (or at risk for) dementia: How strong is the relationship?* PERFORM Centre research week, Montreal, QC, Canada.
- Rehan, S., Giroud, N., Wittich, W., Al-Yawer, F., & Phillips, N. A. (submitted). *The Relationship Between Hearing Loss and Visual Impairment in Subjects with Cognitive Decline*. PERFORM Centre research week, Montreal, QC, Canada.
- Egurtzegi, A., Sauppe, S., Blasi, D., Choudhary, K., Giroud, N., Jing, Y., Bhattamishra, S., Gulati, M., Bornkessel-Schlesewsky, I., Meyer, M., Bickel, B. (2019, September). *The agent preference in sentence planning: Challenges from ergative case marking*. 13th Conference of the Association for Linguistic Typology, Pavia, Italy.
- Al-Yawer, F., Pichora-Fuller, K., Wittich, W., Mick, P., Giroud, N., Rehan, S., Phillips, N. (2019, June). *Sensory loss and cognitive function in older adults at different stages of cognitive impairment*. 5th International Conference on Cognitive Hearing Science for Communication (CHSCOM), Linköping, Sweden.
- Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., Rehan, S., & Phillips, N. A. (2019, June). *Age-related hearing loss and cortical atrophy in older adults with (or at risk for) dementia: How strong is the*

- relationship?* 5th International Conference on Cognitive Hearing Science for Communication (CHSCOM), Linköping, Sweden.
- Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., Rehan, S., & Phillips, N. A. (2019, March). *The relationship between hearing loss and hippocampal volume in older adults with (or at risk for) dementia*. Aging & Brain Health: Prevention and Early Detection of Dementia. Moderated poster presentation at the Rotman Research Institute Conference, Baycrest. Toronto, Canada.
- Rehan, S., Giroud, N., Pichora-Fuller, M. K., Mick P., Wittich, W., Al-Yawer, F., & Phillips, N. A. (2019, February). *The Relationship Between Hearing Loss and Visual Impairment in Subjects with Cognitive Decline*. Annual conference of the Centre for Research on Human Development (CRDH), Montréal, Canada.
- Neuschwander, P., Jagoda, L., Giroud, N., & Meyer, M. (2019, April). *The role of cognitive decline for speech understanding in hearing impaired and normal hearing older adults*. Poster presentation at the 5<sup>th</sup> International conference Aging & Cognition, Zurich, Switzerland.
- Giroud, N. & Phillips, N.A. (2018, September). *Working memory capacity, but not age, modulates prefrontal-visual connectivity during context use in an audiovisual speech perception task*. Sixth Biennial Conference on Resting-State and Brain Connectivity, Montréal, Québec, Canada.
- Sauppe, S., Choudhary, K.K., Giroud, N., Bhattamishra, S., Gulati, M., Bornkessel-Schlesewsky, I., Meyer, M., & Bickel, B. (2018, July). *Distributed fixations and changes in EEG frequency band power index relational encoding and early morphological case assignment in Hindi sentence planning*. Poster presentation at the International Workshop on Language Production, Nijmegen, Netherlands.
- Kurthen, I., Giroud, N., Daum, M., & Meyer, M. (2018, June). *Speech comprehension in older adults: Limited by neuronal capacity to process prosodic cues?* Poster presented at the HEAL conference, Como, Italy.
- Giroud, N., Herbert, M., & Phillips, N.A. (2018, May). *Does lip reading make speech comprehension easier for everyone? Electrophysiological evidence on interindividual differences in younger and older adults with varying working memory capacity*. Poster presented at the CRBLM Scientific day, May 14, 2018, Montreal, QC, Canada.
- Giroud, N., Herbert, M., & Phillips, N.A. (2018, May). *Does lip reading make speech comprehension easier for everyone? Electrophysiological evidence on interindividual differences in younger and older adults with varying working memory capacity*. Poster presented at the Ninth Annual LDI Scientific Retreat, Montreal, QC, Canada.
- Kurthen, I., Giroud, N., Jagoda, L., Neuschwander, P., Lemke, U., & Meyer, M. (2018, May). *Hearing loss and cognition in old age: How the brain deals with multi-talker babble noise*. Poster presented at LIFE Spring Academy, Ann Arbor, USA.
- Kurthen, I., Giroud, N., Jagoda, L., Neuschwander, P., Pryss, R., Schlee, W., Schobel, J., & Meyer, M. (2017, October). *TrackYourHearing: Assessing variability in hearing loss in everyday life*. Poster presentation at the LIFE Fall Academy, Zurich, Switzerland.
- Giroud, N., Hirsiger, S., Keller, M., Kegel, A., Dillier, N., Dellwo, V., Meyer, M. (2017, June). *Prosody – the most useful acoustic cue for older adults with central hearing loss? Bridging the gap between brain structure, brain function and central hearing*. Poster at the 4th International Conference on Cognitive Hearing Science for Communication, Linköping, Sweden.
- Kurthen, I., Giroud, N., Jagoda, L., Lemke, U., Meyer, M. (2017, May). *The specificity of the cognitive influence on speech processing in the context of age-related hearing loss*. Poster at the LIFE Spring Academy 2017 (International Max Planck Research School on the Life Course), Ann Arbor, USA.
- Giroud, N., Hirsiger, S., Kegel, A., Dillier, N., & Meyer, M. (2016, June). *Speaking up does not help older adults with presbycusis to understand – but a thicker cortex does*. Poster at the Organization for Human Brain Mapping, Geneva, Switzerland.
- Muri, R., Giroud, N., Hirsiger, S., Kegel, A., Dillier, N., & Meyer, M. (2016, May). *Central hearing loss in healthy aging adults: The contribution of cortical thickness and divided attention to speech perception in noise*. Poster presentation at the Madoko, Zurich, Switzerland.
- Bauer, J., Giroud, N., & Meyer, M. (2016, May). *Where are you from? The processing of salient features of Swiss dialects in the brain*. Poster presentation at the Madoko, Zurich, Switzerland.
- Kliesch, M., Giroud, N., & Meyer, M. (2016, May). *Learning a new language during old adulthood. A longitudinal study*. Poster presentation at the Madoko, Zurich, Switzerland.
- Giroud, N., Lemke, U., & Meyer, M. (2015, December). *Comparing the impact of hearing aid algorithms for neural auditory learning*. Poster at the Workshop Individual Differences in Language Processing Across the Adult Life Span: Implications for Models of Comprehension and Production, Nijmegen, Netherlands.
- Giroud, N., Lemke, U., & Meyer, M. (2015, October). *Longitudinal neural plasticity as a function of using hearing aids with non-linear frequency compression*. Poster at the 6<sup>th</sup> Aging and Speech Communication Research Conference 2015, Bloomington, USA.



- Keller, M., Giroud, N., & Meyer, M. (2015 October). *Auditory alpha power in younger and older listeners during speech prosody processing*. Poster at the 6<sup>th</sup> Aging and Speech Communication Research Conference 2015, Bloomington, USA.
- Giroud, N., Lemke, U., & Meyer, M. (2015, September). *Stabilization neural language functions in healthy older adults using hearing aids with different signal processing algorithms*. Poster at the URPP Dynamics of Healthy Aging Site Visit, Zurich, Switzerland.
- Giroud, N., Dellwo, V., & Meyer, M. (2014, October). *Variability of current density in right supratemporal gyrus is related to faster reaction times in auditory prosody task*. Poster presentation at the LIFE Fall Academy 2014 (International Max Planck Research School on the Life Course), Berlin, Germany.
- Giroud, N., Dellwo, V., & Meyer, M. (2014, September). *Dynamic functional lateralization during processing of short and long scale intervals in speech signals*. Poster presentation at the conference on auditory cortex, Magdeburg, Germany.
- Giroud, N., Keller, M., Kurthen, I., Dellwo, V., & Meyer, M. (2014, May). *The influence of age on speech processing: Testing the paradigm*. Poster presentation at the Limadoko, Zurich, Switzerland.
- Kurthen, I., Keller, M., Giroud, N., & Meyer, M. (2014, May). *Elementary speech processing in young adults*. Poster presentation at the Limadoko, Zurich, Switzerland.
- Giroud, N., Keller, M., Kurthen, I., Dellwo, V., & Meyer, M. (2014, May). *The influence of age on speech processing: Testing the paradigm*. Poster presentation at the LIFE Spring Academy 2014 (International Max Planck Research School on the Life Course), Charlottesville, USA.
- Giroud, N., Keller, M., Kurthen, I., Dellwo, V., & Meyer, M. (2013, October). *Don't let time outrun you: The influence of age on temporal information during speech processing*. Poster presentation at the LIFE Fall Academy 2013 (International Max Planck Research School on the Life Course), Marbach, Germany.
- Giroud, N., Keller, M., Kurthen, I., Dellwo, V., & Meyer, M. (2013, September). *Don't let time outrun you: The influence of age on temporal information during speech processing*. Poster presentation at the INAPIC Fall Workshop, Zurich, Switzerland.
- Giroud, N., Dellwo, V., & Meyer, M. (2013, September). *Don't let time outrun you: The influence of age on temporal information during speech processing*. Poster presentation at the International Conference on Basic and Clinical Multimodal Imaging BACI, Geneva, Switzerland.

## OUTREACH

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### Media Coverage

- [1] Article about our study in Swiss journal "Gesundheitstipp" (2024). <https://www.gesundheitstipp.ch/artikel/artikeldetail/lippenlesen-hilft-beim-verstehen>
- [2] Interview about our study in Swiss journal for hearing impaired "Dezibel" (12/2023) titled "Online Training Lippenlesen.ch hilft"
- [3] Short communication about our study „Mehr verstehen dank Schnellkurs im Lippenlesen“ in Horizonte – the Swiss research magazine (2023). <https://www.horizonte-magazin.ch/2023/12/07/online-crashkurs-im-lippenlesen/>
- [4] Article about our study in the UZH-ETHZ Center for Neuroscience Newsletter <https://znznews.ch/hearing-loss-is-not-always-about-the-ears/>
- [5] Our study covered in Swiss journal for hearing impaired "Dezibel" 3/2022 titled "Online-Training «Lippenlesen.ch»: Das hilft!"
- [6] Interview: 10 questions to Prof. Nathalie Giroud, in newsletter for the LIFE Community (the International Max Planck Research School «The Life Course: Evolutionary and Ontogenetic Dynamics»)
- [7] Online article about new competence center on Language & Medicine at the University of Zurich: [https://www.news.uzh.ch/de/articles/2022/language\\_medicine\\_zurich.html](https://www.news.uzh.ch/de/articles/2022/language_medicine_zurich.html)
- [8] Interview with Dr. Stefan Launer (Sonova, Senior Vice President Science and Technology): <https://www.sonova.com/en/story/innovation/exciting-insights-fascinating-world-hearing>
- [9] Interview together with Dr. Stefan Launer (Sonova, Senior Vice President Science and Technology) on developments in hearing research and technology for older adults for Migros Zeitung, October 2021: <https://www.migros-impuls.ch/de/medizin/beschwerden/hoerprobleme/fakten-hoeren>
- [10] Interview for journal Dezibel on the association between hearing and dementia, March 2021, <https://www.pro-audito.ch/news/schwerhoerigkeit-und-demenz/?fbclid=IwAR3AxF-tzzfdPc467-D3ME6HnPAJSI5VSH346CBs09TuR70oG4CPqw-VII>
- [11] Our study on neural correlates of language structure preparation during speaking in the Swiss newspaper among others: <https://www.blick.ch/schweiz/sprachwissenschaft-einfache-grammatik-macht-es-dem-gehirn-schwierig-id16324522.html>



- [12] Online article about the research of my dissertation on hearing and aging <http://www.sonova.com/de/features/ hoeren-wird-fuer-das-gehirn-im-alter-anstrengender>
- [13] Newsletter of the Academic Sports Association Zurich about my talk on sports and the brain with the title Sport & the brain: What if brain areas grow by being physically active? [Sport & Gehirn: Wenn Gehirnbereiche mit der Fitness wachsen] <https://asvz.ch/news/59454-sport-gehirn-wenn-gehirnbereiche-mit-der-fitness-wachsen>
- [14] Online articles about the research of my dissertation on hearing and aging <http://science.orf.at/stories/2798526>  
[http://www.wienerzeitung.at/themen\\_channel/wissen/forschung/846563\\_Hoerleistung-laesst-sich-trotz-Alter-verbessern.html](http://www.wienerzeitung.at/themen_channel/wissen/forschung/846563_Hoerleistung-laesst-sich-trotz-Alter-verbessern.html)
- [15] Zeitschrift für Audiologie (Feb, 2017): “Hören wird für das Gehirn im Alter anstrengender”
- [16] Neue Zürcher Zeitung NZZ: <https://www.nzz.ch/wirtschaft/zum-hoeren-braucht-es-mehr-als-nur-gute-ohren-ld.1327128>
- [17] PULS (September 10th, 2018) on Swiss Television SRF “Hearing problems”: <https://www.srf.ch/sendungen/puls/hoerprobleme-infarkt-beim-sport-ueberfluessige-stents-anno-puls>
- [18] University of Zurich News about winning the PRIMA grant by the Swiss National Science Foundation: [https://www.news.uzh.ch/de/articles/2019/PRIMA\\_Grantees.html](https://www.news.uzh.ch/de/articles/2019/PRIMA_Grantees.html)

### Science fair

Talks for school classes and information desk on neuroplasticity and hearing at the BrainFair Zurich in March 2017: <http://www.brainfair.uzh.ch/de.html>

### MOBILE PHONE APPS

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Track-Your-Hearing App: Co-developer of app assessing daily life fluctuations of hearing outside of the lab. German and English version released for Mac and Android

### ADVANCED TRAINING (SELECTION)

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2022	<u>2<sup>nd</sup> Healthy Longevity Innovation Days</u> at the University of Zurich
2021	<u>1<sup>st</sup> Healthy Longevity Innovation Conference and Workshop</u> at the University of Zurich
2020	Workshop on <u>Current advances in neurolinguistics - oscillations, language &amp; the brain</u> at the University of Zurich
2020	<u>Advanced Analyses of EEG Data Using Matlab: Conceptual Background and Practical Applications</u> at the University of Zurich
2018	<u>Brainstorm</u> workshop at PERFORM center at Concordia University
2018	Workshop “ <u>Decoding mental states with EEG</u> ” at McGill University
2015	Semester course on <u>medical acoustics</u> at the ETH and the University of Zurich
2015	<u>Statistical Parametric Mapping (SPM) Course</u> 2015, basics (certified), Translational Neuromodeling Unit, University and ETH of Zurich
2013-2014	<u>Introductory course in neuroscience</u> for international PhD program in neuroscience, Neuroscience Center Zurich, University and ETH of Zurich (grade: very good)
2014	<u>FieldTrip Workshop Zurich</u> (certified)
2014	Participant in peer-mentoring group <u>Applied Programming for Psychologists (APP)</u>
2013-2016	Structured <u>doctoral program in psychology</u> (30 ETCS points)
2011	<u>MR safety course</u> (certified), Institute for Biomedical Engineering, ETH and University of Zurich

### LEAVES OF ABSENCE

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08/2017-11/2017	Maternity leave
01/2020-05/2020	Maternity leave
08/2022-12/2022	Maternity leave