

Academic Curriculum Vitae of Bernhard Laback



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Birthday: May 27, 1970

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Affiliation and Position

Senior Researcher at the Acoustics Research Institute, Austrian Academy of Sciences
Leader of Group: “Psychoacoustics and Experimental Audiology”

Areas of Interest

General

- Psychoacoustics in normal hearing, electric hearing with cochlear implants (CIs) and hearing impairment

Specific Topics

- Binaural hearing:
 - Perception of binaural cues, with a focus on interaural time differences
 - Models of binaural hearing
 - Spectral interference in binaural hearing (“binaural interference”)
 - Interaction of interaural time and level differences
- Vertical-plane sound localization based on spectral localization cues
- Perceptual grouping of auditory objects based on binaural and monaural cues (Gestalt phenomena)
- Auditory masking, particularly time-frequency masking
- Spectral sensitivity and auditory profile analysis
- Training effects and plasticity in auditory perception
- Signal-processing strategies for CIs and hearing aids to improve the access to binaural and spectral information

Academic Education and Awards

- 1994: MSc in natural-sciences oriented (systematic) musicology with a focus on psychoacoustics at Univ. of Vienna. Thesis: ‘The influence of the strings' spectrum on the radiated sound of the violin’. Advisors: Doz. Dr. W. A. Deutsch, Prof. Dr. Franz Födermayr
- 1994: Diploma in sound engineering, Institute of Electroacoustics and Electronic Music (Univ. of Music and Applied Arts, Vienna)
- 1996: DOC (doctoral) grant of the Austrian Academy of Sciences

- 1997: 6-month fellowship at Experimental Audiology Group (VU University Medical Center, Amsterdam), Advisors: Dr. Niek Versfeld, Tammo Houtgast
- 1999: PhD (interdisciplinary) at Univ. of Vienna, Thesis "Music perception with sensorineural hearing impairment and applications for signal processing algorithms in hearing aids" Advisors and Examiners: Dr. Niek Versfeld (Free Univ. Hospital Amsterdam), Doz. Dr. W. A. Deutsch (Austrian Academy of Sciences), Univ. Prof. Dr. Franz Födermayr (Univ. of Vienna), Prof. Dr. Martin Steurer (Medical Univ. of Vienna), Univ. Prof. Dr.med. W. Fritze, (Medical Univ. of Vienna)
- 2011: Election as Fellow of the Institute of Advanced Studies (Hanse-Wissenschaftskolleg) Delmenhorst, Germany:
 - Nine-month fellowship (from Feb.-Dec. 2012) in cooperation with the Univ. of Oldenburg, Medical Physics Department (Univ. Prof. Dr. Dr. Birger Kollmeier)
- 2013: Habilitation in General/Experimental Psychology, University of Vienna. Treatise: "[The Psychophysical Bases of Spatial Hearing in Acoustic and Electric Stimulation](#)"

Publications

For a complete list of publications see the ARI [publications page](#).

Journal Papers (all in peer-reviewed international journals)

- Srinivasan, S., **Laback, B.**, Majdak, P., and Arnoldner, C. (2020). Improving Interaural Time Difference Sensitivity using Short Inter-pulse Intervals with Amplitude-Modulated Pulse Trains in Bilateral Cochlear Implants, *J. Assoc. Res. Otolaryngology* 21, 105-120.
- Lindenbeck, M., **Laback, B.**, Majdak, P., and Srinivasan, S. (2020). Temporal-pitch sensitivity in electric hearing with amplitude modulation and inserted pulses with short inter-pulse intervals, *The Journal of the Acoustical Society of America* 147, 777.
- Srinivasan, S., **Laback, B.**, Majdak, P., and Delgutte, B. (2018). Introducing Short Interpulse Intervals in High-Rate Pulse Trains Enhances Binaural Timing Sensitivity in Electric Hearing, *J. Assoc. Res. Otolaryngology* 19, 301-315.
- **Laback, B.**, Dietz, M., and Joris, P. (2017). Temporal effects in interaural and sequential level difference perception, in: *The Journal of the Acoustical Society of America* 142, 3267–3283.
- Tabuchi, H. and **Laback, B.** (2017): Psychophysical and modeling approaches towards determining the cochlear phase response based on interaural time differences, in: *The Journal of the Acoustical Society of America* 141, 4314–433.
- Egger, K., Majdak, P., **Laback, B.** (2017): Binaural timing information in electric hearing at low rates: Effects of inaccurate encoding and loudness, in: *Journal of the Acoustical Society of America* 141(5, electronic).
- Necciari, T., **Laback, B.**, Sophie, S., Ystad, S., Balazs, P., Meunier, S., and Kronland-Martinet, R. (2016). Auditory time-frequency masking for spectrally and temporally maximally-compact stimuli. *PLOS One* 22;11 (e0166937).
- Tabuchi, H., **Laback, B.**, Necciari, T., and Majdak, P (2016). The role of compression in the simultaneous masker phase effect, *The Journal of the Acoustical Society of America* 140, 2680-2694.
- Baumgartner, R., Majdak, P., and **Laback, B.** (2106). Modeling the Effects of Sensorineural Hearing Loss on Sound Localization in the Median Plane, *Trend in Hearing* 20, 1-11.
- Ansorge, U., Khalid, S., **Laback, B.** (2016). Unconscious Cross-Modal Priming of Auditory

Sound Localization by Visual Words, *Journal of Experimental Psychology: Learning, Memory, and Cognition* 925-937.

- Egger, K., Majdak, P., and **Laback, B.** (2015). Channel interaction and current level affect across-electrode integration of interaural time differences in bilateral cochlear-implant listeners, *J Assoc Res Otolaryngol.* 17, 55-67..
- **Laback, B.**, Egger, K., and Majdak, P. (2015). Perception and Coding of Interaural Time Differences with Bilateral Cochlear Implants, *Hearing Research* 322, 138-150.
- Baumgartner, , Majdak, , **Laback, B.** (2014): Modeling Sound-Source Localization in Sagittal Planes for Human Listeners., in: *The Journal of the Acoustical Society of America* 136, 791-802.
- Majdak, P., Baumgartner, R., **Laback, B.** (2014): Acoustic and non-acoustic factors in modeling listener-specific performance of sagittal-plane sound localization, in: *Frontiers in Psychology* 5, 319, 1-10.
- **Laback, B.**, Necciari, T., Balazs, P., Savel, S. , Ystad, S. (2013). Simultaneous masking additivity for short Gaussian-shaped tones: Spectral effects, **J. Acoust. Soc. Am.** 134, 1160-1171.
- Majdak, P., Walder, T., and **Laback, B.** (2013). Effect of long-term training on sound localization performance with spectrally warped and band-limited head-related transfer functions., **J. Acoust. Soc. Am.** 134, 2148-2159.
- Dietz, M., Wendt, T., Ewert, S., **Laback, B.**, and Hohmann, V. (2013). Comparing the effect of pause duration on threshold interaural time differences between exponential and squared-sine envelopes, **J. Acoust. Soc. Am.** 133, 1-4 (L).
- **Laback, B.** (2012). Neural Basis Of Improved ITD Sensitivity with Jitter. Focus on “Neural ITD coding with bilateral cochlear implants: Effect of binaurally-coherent jitter”, **Journal of Neurophysiology** 108, 712-713.
- Best, V., **Laback, B.**, and Majdak, P. (2011). Binaural interference in bilateral cochlear-implant listeners, **J. Acoust. Soc. Am.** 130, 2939-2950.
- **Laback, B.**, Zimmermann, I., Majdak, P., Baumgartner, W. D., and Pok, M. (2011). Effects of envelope shape on interaural envelope delay sensitivity in acoustic and electric hearing, **J. Acoust. Soc. Am.** 139, 1515-1529.
- **Laback, B.**, Balazs, P., Necciari, T., Sophie, S. , Ystad, S., Meunier, S., Kronland-Martinet, R. (2011). Additivity of nonsimultaneous masking for short Gaussian-shaped sinusoids, **J. Acoust. Soc. Am.** 129, 888-897.
- Goupell, M., **Laback, B.**, and Majdak, P. (2009). Enhancing sensitivity to interaural time differences at high modulation frequencies by introducing temporal jitter, **J. Acoust. Soc. Am.** 2511-2521.
- Majdak, P., Goupell, M., and **Laback, B.** (2011). Two-dimensional Localization of Virtual Sound Sources in Cochlear-Implant Listeners, **Ear & Hearing** 32, 198-208.
- **Laback, B.**, and Majdak, P. (2008). Binaural jitter improves interaural time difference sensitivity of cochlear implantees at high pulse rates, *Proc. Natl. Acad. Sci. U S A (PNAS)* 105, 2, 814-817.
- Laback, B., and Majdak, P. (2008). Reply to van Hoesel: Binaural jitter with cochlear implants, improved interaural time-delay sensitivity, and normal hearing, Letter to **Proc Natl Acad Sci USA (PNAS)** 12, 105, 32.
- Goupell, M., Majdak, P., and **Laback, B.** (2010). Median-plane sound localization as a function of the number of spectral channels using a channel vocoder, **J. Acoust. Soc. Am.** 127, 990-1001.
- Majdak, P., Goupell, M., and **Laback, B.** (2010). 3-D localization of virtual sound sources: effects of visual environment, pointing method, and training, **Attention, Perception, &**

- Psychophysics** 72, 454-469.
- Majdak, P., and **Laback, B.** (2009). Effect of center frequency and rate on the sensitivity to interaural delay in high-frequency click trains, **J. Acoust. Soc. Am.** 125, 3903-3913.
 - Balazs, P., **Laback, B.**, Eckel, G., and Deutsch, W. A. (2010). Time-Frequency Sparsity by Removing Perceptually Irrelevant Components Using a Simple Model of Simultaneous Masking, **IEEE Trans. Audio Speech Lang. Processing** 18, 1, 34-49.
 - Goupell, M., **Laback, B.**, Majdak, P., and Baumgartner, W. D. (2008). Current-level discrimination and spectral profile analysis in multi-channel electrical stimulation, **J. Acoust. Soc. Am.** 124, 3142-3157.
 - Goupell, M., **Laback, B.**, Majdak, P., and Baumgartner, W. D. (2008). Effects of frequency-place mapping and number of channels on speech intelligibility in electrical stimulation, **J. Acoust. Soc. Am.** 123, 2295-2309.
 - **Laback, B.**, Majdak, P., Baumgartner, W. D. (2007). Lateralization discrimination of interaural time delays in four-pulse sequences in electric and acoustic hearing, **J. Acoust. Soc. Am.** 121, 2182-2191.
 - Majdak, P., Balazs, P., and **Laback, B.** (2007). Multiple Exponential Sweep Method for Fast Measurement of Head Related Transfer Functions, **J. Audio Eng. Soc.** 55, 7/8, 623-637.
 - Majdak, P., **Laback, B.**, Baumgartner, W.D. (2006). Effects of interaural time differences in fine structure and envelope on lateral discrimination in electrical hearing, **J. Acoust. Soc. Am.** 120, 2190-201.
 - **Laback, B.**, Pok, S. M., Baumgartner, W. D., Deutsch, W. A., Schmid, K. (2004). Sensitivity to Interaural Level and Envelope Time Differences of Two Bilateral Cochlear Implant Listeners using Clinical Sound Processors, **Ear & Hearing** 25, 5, 488-500.
 - **Laback, B.**, Deutsch, W. A., Baumgartner, W. D. (2004). Coding of vowel-like signals in cochlear implant listeners, **J. Acoust. Soc. Am.** 116, 1208-1223.
 - **Laback, B.** (1995). The spectrum of the violin's string, its psychoacoustical relevance and perceptual dimensions, in **Systematic Musicology III/2**, 299-316.

Journal Papers Under Review

- Tabuchi, H., and **Laback, B.** (submitted). The masker phase effect and auditory temporal modulation analysis, *J. Acoust. Soc. Am.*
- Ferber, M., Kopco, N., and **Laback, B.** (submitted). Vision-Induced Reweighting of Binaural Localization Cues, *J. Assoc. Research in Otolaryngology*

Book Chapters

- **Laback, B.**, Zimmermann, I., Majdak, P. (2010). Perception of interaural time differences in electric and acoustic hearing, full conference paper published in **Binaural Processing and Spatial Hearing**, edited by J. M. Buchholz, T. Dau, J. C. Dalsgaard, and T. Poulsen (Danavox Jubilee Foundation, Ballerup), 403-416.
- **Laback, B.** (2011). "Spektrale und zeitliche Aspekte der Klangfarbenwahrnehmung. Neue Einblicke durch Cochleaimplantat-Träger?", in **Klangfarbe. Vergleichend-systematische und musikhistorische Perspektiven**, edited by August Schmidhofer & Stefan Jena (Lang, Frankfurt am Main), 83-98.
- Goupell, M. J., Hancock, K., Majdak, P., **Laback, B.**, and Delgutte, B. (2010) "Binaurally-coherent jitter improves neural and perceptual ITD sensitivity in normal and electric hearing," in **Advances in Auditory Physiology, Psychophysics and Models**, edited by E. A. Lopez-Poveda, A. R. Palmer, and R. Meddis (Springer, New York), 303-313.
- Baumgartner, R., Majdak, P. and **Laback, B.** (2013). "Assessment of Sagittal-Plane Sound Localization Performance in Spatial-Audio Applications," in **The Technology of Binaural**

Selected Proceedings Papers

- Ferber, M. and **Laback, B.** (in press). Vision-induced reweighting of binaural localization cues in electric hearing, Proceedings of Forum Acusticum 2020, Lyon.
- Lindenbeck, M., **Laback, B.**, and Majdak, P. (2019), Binaural processing in a new cochlear-implant paradigm inserting extra pulses with short inter-pulse intervals, proceedings of the 23rd International Congress on Acoustics, Aachen.
- Spisak, O., Sebena, R., Loksa, P., Ferber, M., **Laback, B.**, and Kopco, N. (2019), Vision-based Adaptation of the Frequency-dependent Weighting of the Localization Cues, proceedings of the 19th Conference on Cognition and Artificial Life, Bratislava.
- **Laback, B.**, Balazs, P., Toupin, G., Necciari, T., Savel, S., Meunier, S., Ystad, S., Kronland-Martinet, R. (2008). Additivity of auditory masking using Gaussian-shaped tones, in: Proceedings Acoustics'08. Paris, 3889-3894.
- **Laback, B.**, Majdak, P., Goupell, M. (2008): Binaural jitter improves ITD sensitivity of cochlear implantees and normal hearing listeners, in: proceedings of 34th DAGA (Advances in Acoustics, Fortschritte der Akustik), Dresden, 183-184.
- Goupell, M., **Laback, B.**, Majdak, P., and Baumgartner, W. D. (2008). Spectral profile analysis in cochlear implant listeners, in: proceedings of 34th DAGA (Advances in Acoustics, Fortschritte der Akustik), Dresden, 181-182.
- Majdak, P., **Laback, B.**, Goupell, M., Mihocic, M. (2008): The accuracy of localizing virtual sound sources: effects of pointing method and visual environment, in: Proceedings of the 124th Convention of the Audio Engineering Society (AES). Amsterdam, Convention Paper 7407.
- **Laback, B.**, and Majdak, P. (2007): Effect of center frequency on the sensitivity to interaural time differences in filtered pulse trains, in: proceedings of 33th DAGA (Advances in Acoustics, Fortschritte der Akustik), Stuttgart, 111-112.
- Majdak, P., Balazs, P., **Laback, B.** (2007): Multiple exponential sweep method for fast measurement of head related transfer functions, in: Proceedings of the 122nd convention of the Audio Engineering Society (AES). Vienna, 623-637.
- Goupell, M. J., **Laback, B.**, Majdak, P., and Baumgartner, W-D. (2007). Effect of different frequency mappings on speech intelligibility for CI listeners, in: proceedings of 33th DAGA (Advances in Acoustics, Fortschritte der Akustik), Stuttgart.
- **Laback, B.**, Majdak, P., Baumgartner, W. D. (2006). Interaural Time Differences in Ongoing and Gating Signal Portions in Acoustic and Electric Hearing: Model Results, in: proceedings of 32th DAGA (Advances in Acoustics, Fortschritte der Akustik), Braunschweig, 87-88.
- **Laback, B.**, Pok, S.M., Schmid, K., Deutsch, W. A., Baumgartner, W. D. (2002). Efficiency of Binaural Cues in Cochlear Implant Stimulation, in: Acta Acustica Supplement 1 (Proceedings of Forum Acusticum 2002 - 3rd Europea Congress on Acoustics), Sevilla (CD-ROM).
- **Laback, B.**, Deutsch, W. A. (2001). Spektrale Maskierung und interne Spektrumsrepräsentation von synthetischen Vokalen bei Cochlear Implantat-Stimulation, to appear in: proceedings of 27th DAGA (Advances in Acoustics, Fortschritte der Akustik), Hamburg.
- **Laback, B.**, Deutsch, W. A. (2001). Perceptual grouping of tone sequences in cochlear implant stimulation, in: proceedings of 17th International Congress on Acoustics (ICA), Rome (CD-ROM).
- **Laback, B.**, Mair L., Deutsch, W.A. (2000). Spektrale Maskierung bei Stimulation über Cochlea-Implantate, in: proceedings of 26th DAGA (Advances in Acoustics, Fortschritte der Akustik), Oldenburg, 270-271.
- **Laback, B.**, Mair, A., Deutsch, W. A. (2000): Spektrale Maskierung und Vokal-Identifikation

bei Stimulation über Cochlea-Implantate, in: proceedings der 3. Jahrestagung der Deutschen Gesellschaft für Audiologie. Hannover.

- **Laback, B.,** Mair, A., Deutsch, W. A. (2000): Spektrale Maskierung und Vokal-Identifikation bei Stimulation über Cochlea-Implantate, in: 3. Jahrestagung der Deutschen Gesellschaft für Audiologie. Hannover, CD-ROM.
- **Laback, B.,** und Deutsch, W., A. (1998). Musikwahrnehmung im cochleär geschädigten und gesunden Ohr und Effekte variabler spektraler Maskierungskurven, in: proceedings of 24th DAGA (Advances in Acoustics, Fortschritte der Akustik), Zürich.
- **Laback, B.,** (1996). Consequences of increased spectral masking effects on music perception in sensorineural hearing impairment, in: proceedings of JIC'96 (Joint International Conference on Cognitive and Systematic Musicology), Brugge.

Patents

- **Laback, B.,** and Majdak, P. (2008). “Binaural stimulation in neural auditory prostheses or hearing aids,”
 - U.S. Patent, Code # 20080319509, Kind Code A1, granted at 25.12.2008.
 - EU patent #08 759 294.5, granted at 17.9.2009.

Pulication Impact (Google scholar)

- Total number of citations: 1302
- H-index: 19
- i10-index: 26

Some important invitations to scientific conferences

- **Laback, B.** (2018), Advances with Cochlear Implants, 34th Annual Meeting of the International Society of Psychophysics (ISP) – Fechner Day 2018, Lüneburg, Germany.
- **Laback, B.,** Srinivasan, S., Lindenbeck, M., Ferber, M., Majdak, P. (2018). Towards increasing timing sensitivity in electric hearing, 175th Meeting of the Acoustical Society of America, Minneapolis, USA.
- **Laback, B.** (2012). Binaural perception and cochlear implants, keynote lecture at the joint symposium of the Swiss Federal Institute of Technology (EPFL) and Harvard Medical School, Institute of Bioengineering and Bertarelli Program in Translational Neuroscience and Neuroengineering, Lausanne.
- **Laback, B.** (2009). Interaural-time-difference perception in cochlear-implant and hearing-impaired listeners, invited talk at International Symposium on Auditory and Audiological Research (ISAAR), “Binaural processing and spatial hearing”, Helsingør, Denmark
- **Laback, B.,** and Majdak, P. and Baumgartner, W-D. (2007). Effects of interaural time difference in the temporal fine structure, invited talk at Conference on Implantable Auditory Prostheses (CIAP), Lake Tahoe, USA.
- **Laback, B.,** and Majdak, P. and Baumgartner, W-D. (2007). Envelope vs. Fine Structure in Binaural Hearing with Cochlear Implants, invited talk at 6th Meeting on Bilateral CI and Binaural Signal Processing, Bern, Switzerland.
- **Laback, B.,** Majdak, P., Baumgartner, W.D. (2004). Sensitivity to interaural time differences in temporal fine-structure, onset, and offset in bilateral electrical hearing, invited talk at Wullstein Symposium on Bilateral Cochlear Implants and Binaural Signal Processing, Würzburg, Germany

Conference Presentations

- 89 talks or posters at scientific conferences (mostly international),
- 18 invited talks at international conferences

Other publication work

- (Co)-Author of the ÖAL Richtline (#42): Lärmreduktion in elementaren Bildungseinrichtungen (<https://www.oal.at/2-uncategorised/151-neuerscheinung-der-oal-richtlinie-42>)

Funding & Research Grants

- Music perception with sensorineural hearing impairment and applications for signal processing algorithms in hearing aids”, Doctoral Grant (DOC) of the Austrian Academy of Sciences, applicant, Sept. 1996-Aug. 1998, Funding: **EUR 23.895,-**
- „Spectral Cues in Auditory Localization with Cochlear Implant (CI-HRTF)”, Austrian Science Fund (FWF), applicant, Oct. 2005 – Dec. 2010, Funding: **EUR 360.627,-**
- Multipliers in Acoustics (MULAC)”, Vienna Science and Technology Fund (WWTF), co-investigator, 2008-2011, Funding: **EUR 425.000,-**
- „Towards the Sense of Sounds”: French National Research Agency (ANR), co-investigator, 2005-2009, **EUR 410.000,-**
- „Reconsidering Binaural Adaptation in the Auditory System”, Fellowship at Institute of Advanced Studies (Hanse-Wissenschaftskolleg), Delmenhorst, Germany, applicant, Feb. 2012 – Oct. 2012, Funding: **EUR 20.250,-**
- „Frames and Linear Operators for Acoustical Modeling and Parameter Estimation (FLAME)”: START-Preis from FWF, co-investigator, 2011-2017, Funding: **EUR 1.200.000,-**
- “Binaural Hearing and the Cochlear Phase Response (BiPhase)”, Austrian Science Fund (FWF), applicant, granted at 3rd Oct. 2011, Funding: **EUR 210.886,-**
- “Perceptual Optimization of Time-Frequency Audio Representations and Coding”, Joint Project Agence Nationale de la Recherche (ANR) & FWF, co-investigator, submitted at Jan. 17th 2013, requested funding: **EUR 517.533,-**
- “Virtual Acoustics: Localization Model & Numeric Simulations”, Austrian Science Fund (FWF), co-investigator, granted in Dec. 20th 2011, Funding: **EUR 428.362,-**
- “Bilateral Cochlear Implants: Physiology and Psychophysics”, National Institute of Health (NIH), co-investigator, granted in Feb. 2014, Funding specific to ARI: **EUR 451.309,-**
- “Objective Measures in Speech Production and Realistic Sound Perception”, New Frontiers Research Programme 2015, applicant, granted in Mai 2016, Funding: **EUR 200.000,**
- "Plasticity of spatial processing in normal and cochlear-implant hearing", Multilateral S&T Cooperation in the Danube Region (WTZ), together with Safarik University Kosice and Charles University Prague, principal investigator in Austria, granted in Jan. 2017, Funding: **EUR 9.910,-**
- "SIPI Loudess", FEMTECH (FFG), applicant, granted at 05.04.2019, Funding: **EUR 1680,-**

Supervision

Supervision of 8 Masters, 1 Bachelor, 4 PhDs, as well as 5 Post-Docs.

Reviewing Activities

- Journal of the Acoustical Society of America

- Journal of the Association for Research in Otolaryngology
- Ear and Hearing
- Hearing Research
- Acta Acustica
- Eurasip: Journal on Advances in Signal Processing
- Audiology & Neurotology
- Acta Oto-Laryngologica
- Brain
- International Journal of Audiology

Total number of reviewed papers: 85

Selected International Collaborations

- Bertrand Delgutte, Kenneth Hancock: Massachusetts Eye and Ear Infirmary (MIT) & Harvard Medical School (USA)
- Virginia Best: Auditory Neuroscience Lab, Hearing Research Center, Dept of Cognitive & Neural Systems, Boston Univ. (USA) & Computing and Audio Research Laboratory, Univ. of Sydney (Australia)
- Sophie Savel, Sabine Meunier, Richard Kronland-Martinet: Laboratory of Mechanics and Acoustics (LMA), CNRS, Marseille (France)
- Birger Kollmeier, Mathias Dietz, Stephan Ewert, and Volker Hohmann: Medical Physics Department, Univ. of Oldenburg (Germany)

University Teaching

- SS 2017: Introduction to cognitive psychology, University of Vienna & Middle European Interdisciplinary Master programme in Cognitive Science
- Since 2004: Permanent lecturer in “Psychoacoustics” for students of audio engineering/electrical engineering at Institute of Electronic Music & Acoustics, Univ. of Music and Performing Arts Graz & Graz Univ. of Technology
- WS 2012/2013: Proseminar in “Cognitive basics of behavior and experience“, Department of Biological Psychology, University of Vienna.
- WS 2012/2013: “Einführung in wissenschaftliches Denken: Vom schlussfolgernden Beobachten zur experimentellen Methode“, Department of Psychology, University of Vienna.
- SS 2002: Lecture "Musik als Testsignal in der Psychoakustik und experimentellen Audiologie" (Music as a test signal in psychoacoustics and experimental audiology) at the Institute of Musicology, Univ. of Vienna.
- July 2012: Invited lecturer at the Auditory Cognition Summer School at Plymouth University, UK.
Specific topic: "New approaches in cochlear implants".

Organization of Scientific Meetings or Sessions

- International Congress on Acoustics (ICA), organization of session „Audiological Acoustics“, Rome, 2001
- 9th International Conference on Cochlear implants (CI-2006), general organization and organization of session „Bilateral Cochlear Implantation“, Vienna, 2006
- Acoustics '08 conference, organization of session „Cochlear Implants: Going Beyond the Envelope“, Paris, 2008
- “Hearing with Bilateral Hearing Aids and Cochlear Implants”, organization of this satellite

meeting of the 3-Ländertagung of the Medical Physics Associations of Austria, Germany, and Switzerland (ÖGMP, DGMP, and SGSMP), comprising two main sessions

- Discussion session (in cooperation with ITG, DGA, and DEGA), “Binaural Hearing with Hearing Aids and Cochlear Implants”, Vienna, 2011
- Structured session “Quality Aspects in Hearing with Bilateral Cochlear Implants and Hearing Aids”, Vienna, 2011
- 5th *Hanse Feedback in Neurosciences* on “Adaptation and Ongoing Signal Changes in Auditory and Visual Perception”, Hanse-Wissenschaftskolleg (HWK) and Research Center Neurosensory Science of Oldenburg University, Delmenhorst, 2012

Memberships

- German Acoustics Association (DEGA)
- Association for Research in Otolaryngology (ARO)
- Austrian Association for Implantable Hearing Systems (CIA)