

Michal Fereczkowski  
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## **Ansættelse**

**Klinisk Institut**  
SDU  
1. jul. 2024 → 30. jun. 2027

## **Adjunkt**

KI, OUH, Forskningsenhed for Oto Rhino laryngologi (Odense)  
SDU  
1. jul. 2024 → 30. jun. 2027

## **Publikationer**

**Speech intelligibility declines at near- and above-conversational levels in aided hearing-impaired listeners**  
Jürgensen, L., Fereczkowski, M. (Medlem af forfattergruppering) & Neher, T. (Medlem af forfattergruppering), jun. 2024.

**Comparison of Two Clinical Devices for the Measurement of Distortion Product Otoacoustic Emissions in Normal-Hearing Adults**  
Cañete, O. M., El-Haj-Ali, M. & Fereczkowski, M., 24. feb. 2024, I: Journal of Audiology & Otology. 28, 2, s. 146-152

**Test-retest evaluation of a notched-noise test using consumer-grade mobile audio equipment**  
Hyvärinen, P., Fereczkowski, M. & MacDonald, E. N., feb. 2024, I: International Journal of Audiology. 63, 2, s. 127-135

**Amplitude Compression for Preventing Rollover at Above-Conversational Speech Levels**  
Fereczkowski, M., Sanchez-Lopez, R., Klausen, S. & Neher, T., 5. jan. 2024, I: Trends in Hearing. 28

**Influence of semantic context information on rollover in aided hearing-impaired listeners**  
Jürgensen, L., Fereczkowski, M. (Medlem af forfattergruppering) & Neher, T. (Medlem af forfattergruppering), jan. 2024.

**Can Semantic Context Information Mask Rollover In Hearing-Impaired Listeners?**  
Jürgensen, L., Jacobsen, K. M., Fereczkowski, M. & Neher, T., 23. aug. 2023.

**Influence of clinical fitting rationales on rollover at above-conversational speech levels**  
Fereczkowski, M., Jacobsen, K. M., Jürgensen, L. & Neher, T., 23. aug. 2023.

**Semantic context can mask intelligibility declines at above-conversational speech levels in normal-hearing listeners**  
Fereczkowski, M. & Neher, T., 20. jun. 2023, I: Journal of Speech, Language, and Hearing Research. 66, 6, s. 2177-2183

**Can semantic context information mask rollover in hearing-impaired listeners?**  
Jürgensen, L., Jacobsen, K. M., Fereczkowski, M. & Neher, T., 6. mar. 2023.

**Corrigendum: Auditory tests for characterizing hearing deficits in listeners with various hearing abilities: The BEAR test battery**  
Sanchez-Lopez, R., Nielsen, S. G., El-Haj-Ali, M., Bianchi, F., Fereczkowski, M., Cañete, O. M., Wu, M., Neher, T., Dau, T. & Santurette, S., 25. jan. 2023, I: Frontiers in Neuroscience. 16, 1122830.

### **Predicting aided outcome with aided word recognition scores measured with linear amplification at above-conversational levels**

Fereczkowski, M. & Neher, T., jan. 2023, I: *Ear and Hearing*. 44, 1, s. 155-166

### **Influence of clinical fitting rationales on rollover at above-conversational speech levels**

Fereczkowski, M., Jacobsen, K. M., Jürgensen, L. & Neher, T., 2023, *Forum Acusticum 2023 - 10th Convention of the European Acoustics Association, EAA 2023*. European Acoustics Association, s. 1-4 (Proceedings of Forum Acusticum).

### **Towards auditory profile-based hearing-aid fittings: BEAR rationale and clinical implementation**

Sanchez-Lopez, R., Wu, M. (Medlem af forfattergruppering), Fereczkowski, M. (Medlem af forfattergruppering), Santurette, S. (Medlem af forfattergruppering), Baumann, M. (Medlem af forfattergruppering), Kowalewski, B. (Medlem af forfattergruppering), Piechowiak, T. (Medlem af forfattergruppering), Bisgaard, N. (Medlem af forfattergruppering), Ravn, G. (Medlem af forfattergruppering), Narayanan, S. K. (Medlem af forfattergruppering), Dau, T. (Medlem af forfattergruppering) & Neher, T., 9. okt. 2022, I: *Audiology Research*. 12, 5, s. 564–573

### **Revisiting auditory profiling: Can cognitive factors improve the prediction of aided speech-in-noise outcome?**

Wu, M., Christiansen, S., Fereczkowski, M. & Neher, T., 9. aug. 2022, I: *Trends in Hearing*. 26, 16 s.

### **Auditory Tests for Characterizing Hearing Deficits in Listeners With Various Hearing Abilities: The BEAR Test Battery**

Sanchez-Lopez, R., Grini Nielsen, S., El-Haj-Ali, M., Bianchi, F., Fereczkowski, M., Cañete, O. M., Wu, M., Neher, T., Dau, T. & Santurette, S., 29. sep. 2021, I: *Frontiers in Neuroscience*. 15, 19 s., 724007.

### **Influence of Three Auditory Profiles on Aided Speech Perception in Different Noise Scenarios**

Wu, M., Cañete, O. M., Schmidt, J. H., Fereczkowski, M. & Neher, T., 30. jun. 2021, I: *Trends in Hearing*. 25

### **Towards Auditory Profile-Based Hearing-Aid Fitting: Fitting Rationale and Pilot Evaluation**

Sanchez-Lopez, R., Fereczkowski, M., Santurette, S., Dau, T. & Neher, T., 16. jan. 2021, I: *Audiology Research*. 11, 1, s. 10-21

### **Comparison of Behavioral and Physiological Measures of the Status of the Cochlear Nonlinearity**

Fereczkowski, M., Dau, T. & MacDonald, E. N., 2021, I: *Trends in Hearing*. 25, 11 s.

### **Effects of Noise and Second Language on Conversational Dynamics in Task Dialogue**

Sørensen, A. J. M., Fereczkowski, M. & MacDonald, E. N., 2021, I: *Trends in Hearing*. 25

### **Robust Data-Driven Auditory Profiling Towards Precision Audiology**

Sanchez-Lopez, R., Fereczkowski, M., Neher, T., Santurette, S. & Dau, T., 5. dec. 2020, I: *Trends in Hearing*. 24, 19 s.

### **Investigating the Effects of Four Auditory Profiles on Speech Recognition, Overall Quality, and Noise Annoyance With Simulated Hearing-Aid Processing Strategies**

Wu, M., Sanchez-Lopez, R., El-Haj-Ali, M., Nielsen, S. G., Fereczkowski, M., Dau, T., Santurette, S. & Neher, T., 19. okt. 2020, I: *Trends in Hearing*. 24, 12 s.

### **Perceptual evaluation of six hearing-aid processing strategies from the perspective of auditory profiling: Insights from the BEAR project**

Wu, M., Sanchez-Lopez, R., El-Haj-Ali, M., Grini Nielsen, S., Fereczkowski, M., Dau, T., Santurette, S. & Neher, T., 26. mar. 2020, *Proceedings of the International Symposium on Auditory and Audiological Research: Auditory Learning in Biological and Artificial Systems*. Kressner, A. A., Regev, J., Christensen-Dalsgaard, J., Tranebjærg, L., Santurette, S. & Dau, T. (red.). Danavox Jubilee Foundation, Bind 7. s. 265-272 (The ISAAR proceedings, Bind 7).

### **Robust auditory profiling: Improved data-driven method and profile definitions for better hearing rehabilitation**

Sanchez-Lopez, R., Fereczkowski, M., Neher, T., Santurette, S. & Dau, T., 26. mar. 2020, *Proceedings of the International Symposium on Auditory and Audiological Research: Auditory Learning in Biological and Artificial Systems*. Bind 7. s. 281-288 (The ISAAR proceedings, Bind 7).

**A clinical test battery for Better hEARing Rehabilitation (BEAR): Towards the prediction of individual auditory deficits and hearing-aid benefit**

Sanchez-Lopez, R., Grini Nielsen, S., Canete, O., Fereczkowski, M., Wu, M., Neher, T. & Santurette, S., 2019, *Proceedings of the 23rd International Congress on Acoustics: Integrating 4th EAA Euroregio 2019*. Ochmann, M., Michael, V. & Fels, J. (red.). German Acoustical Society (DEGA), s. 3841-3848

**Assessing the interaction between different auditory profiles and benefit from six hearing aid processing strategies: Insights from the BEAR project**

Wu, M., Sanchez-Lopez, R., El-Haj-Ali, M., Grini Nielsen, S., Fereczkowski, M., Dau, T., Santurette, S. & Neher, T., 2019, *Proceedings of the 23rd International Congress on Acoustics: Integrating 4th EAA Euroregio 2019*. Ochmann, M., Michael, V. & Fels, J. (red.). German Acoustical Society (DEGA), s. 3849-3856

**Auditory tests for characterizing individual hearing deficits: The BEAR test battery**

Sanchez Lopez, R., Fereczkowski, M., Bianchi, F., El-Haj-Ali, M., Neher, T., Dau, T. & Santurette, S., 17. aug. 2018.

**Hearing aid processing strategies for listeners with different auditory profiles: Insights from the BEAR project**

Wu, M., El-Haj-Ali, M., Sanchez Lopez, R., Fereczkowski, M., Bianchi, F., Dau, T., Santurette, S. & Neher, T., 16. aug. 2018.

**Technical evaluation of hearing-aid fitting parameters for different auditory profiles**

Sanchez-Lopez, R., Fereczkowski, M., Bianchi, F., Piechowiak, T., Hau, O., Syskind Pedersen, M., Behrens, T., Neher, T., Dau, T. & Santurette, S., 2018, *Proceedings of Euronoise 2018*. European Acoustics Association, s. 381-388 (Euronoise).

## **Aktiviteter**

**Can rollover at above-conversational speech levels be used to assess cochlear synaptopathy in listeners with normal audiograms?**

Fereczkowski, M. (Forfatter), Van Yper, L. N. (Medforfatter) & Neher, T. (Medforfatter)  
19. aug. 2024 → 25. aug. 2024

**Detecting and compensating for rollover at moderate-to-high speech levels**

Jürgensen, L. (Oplægsholder), Fereczkowski, M. (Medforfatter) & Neher, T. (Medforfatter)  
19. aug. 2024 → 25. aug. 2024

**Influence of clinical fitting rationales on rollover at above-conversational speech levels**

Fereczkowski, M. (Oplægsholder), Jacobsen, K. M. (Medforfatter), Jürgensen, L. (Medforfatter) & Neher, T. (Medforfatter)  
11. sep. 2023 → 15. sep. 2023

**Amplitude compression for listeners with rollover at above-conversational speech levels**

Fereczkowski, M. (Oplægsholder), Klausen, S. (Medforfatter), Sanchez-Lopez, R. (Medforfatter) & Neher, T. (Medforfatter)  
10. aug. 2022 → 14. aug. 2022

**Hearing-aid amplitude compression for listeners with rollover at above-conversational speech levels**

Fereczkowski, M. (Oplægsholder), Klausen, S. (Medforfatter), Sanchez-Lopez, R. (Medforfatter) & Neher, T. (Medforfatter)  
1. jun. 2022 → 3. jun. 2022

**Towards auditory profile-based hearing-aid fittings: Insights from the BEAR project**

Neher, T. (Oplægsholder), Sanchez-Lopez, R. (Medforfatter), Wu, M. (Medforfatter), Fereczkowski, M. (Medforfatter), Santurette, S. (Medforfatter) & Dau, T. (Medforfatter)  
1. jun. 2022 → 3. jun. 2022

**Hearing-aid amplitude compression for listeners with rollover at above-conversational speech levels**

Fereczkowski, M. (Oplægsholder), Klausen, S. (Medforfatter), Sanchez-Lopez, R. (Medforfatter) & Neher, T. (Medforfatter)

9. maj 2022 → 11. maj 2022

**Towards auditory profile-based hearing-aid fittings: BEAR rationale and clinical implementation**

Sanchez-Lopez, R. (Oplægsholder), Fereczkowski, M. (Medforfatter), Wu, M. (Medforfatter), Santurette, S. (Medforfatter), Baumann, M. (Medforfatter), Kowalewski, B. (Medforfatter), Piechowiak, T. (Medforfatter), Ravn, G. (Medforfatter), Narayanan, S. K. (Medforfatter), Dau, T. (Medforfatter) & Neher, T. (Medforfatter)

9. maj 2022 → 11. maj 2022

**Influence of three auditory profiles on aided speech perception in different noise scenarios**

Wu, M. (Forfatter), Cañete, O. (Medforfatter), Schmidt, J. (Medforfatter), Fereczkowski, M. (Medforfatter) & Neher, T. (Medforfatter)

20. jan. 2022 → 21. jan. 2022

**Rollover effects at above-conversational levels in speech materials with low but not high context**

Fereczkowski, M. (Forfatter) & Neher, T. (Medforfatter)

20. jan. 2022 → 21. jan. 2022

**Towards auditory profile-based hearing-aid fittings: Insights from the BEAR project**

Sanchez-Lopez, R. (Medforfatter), Wu, M. (Medforfatter), Fereczkowski, M. (Medforfatter), Santurette, S. (Medforfatter), Dau, T. (Medforfatter) & Neher, T. (Keynote speaker)

27. aug. 2021

**Maximum aided word recognition score and rollover presence at higher-than-normal speech levels predict hearing-aid outcome effectively**

Fereczkowski, M. (Forfatter) & Neher, T. (Medforfatter)

25. aug. 2021

**Rollover effects at higher-than-normal levels in speech materials with low but not high context**

Fereczkowski, M. (Forfatter), Mikkelsen, B. D. (Medforfatter) & Neher, T. (Medforfatter)

24. aug. 2021

**Revisiting auditory profiling: Can cognitive factors improve the prediction of aided speech-in-noise outcome?**

Wu, M. (Forfatter), Klausen, S. (Medforfatter), Fereczkowski, M. (Medforfatter) & Neher, T. (Medforfatter)

23. aug. 2021

**Influence of three auditory profiles on aided speech perception in different noise scenarios**

Wu, M. (Oplægsholder), Canete, O. (Medforfatter), Hvass Schmidt, J. (Medforfatter), Fereczkowski, M. (Medforfatter) & Neher, T. (Medforfatter)

21. maj 2021

**Auditory Profiling: Exploring Differences in Auditory Processing Abilities Towards Profile-based Hearing-aid fitting strategies**

Sanchez-Lopez, R. (Oplægsholder), Fereczkowski, M. (Medforfatter), Santurette, S. (Medforfatter), Whitmer, W. (Medforfatter), Neher, T. (Medforfatter) & Dau, T. (Medforfatter)

20. maj 2021

**Can word recognition scores predict aided outcome and guide hearing-aid fitting?**

Fereczkowski, M. (Oplægsholder) & Neher, T. (Medforfatter)

20. maj 2021

**Can word recognition scores predict aided outcome and guide hearing-aid fitting?**

Fereczkowski, M. (Oplægsholder) & Neher, T. (Medforfatter)

12. feb. 2021

**A clinical test battery for Better hEARing Rehabilitation (BEAR) - Towards the prediction of individual auditory deficits and hearing-aid benefit**

Sanchez-Lopez, R. (Oplægsholder), Grini Nielsen, S. (Andet), Cañete, O. (Andet), Fereczkowski, M. (Andet), Wu, M. (Andet), Neher, T. (Andet), Dau, T. (Andet) & Santurette, S. (Andet)  
9. sep. 2019 → 13. sep. 2019

**Assessing the interaction between different auditory profiles and benefit from six hearing aid processing strategies: Insights from the Better hEARing Rehabilitation (BEAR) project**

Wu, M. (Oplægsholder), Sanchez-Lopez, R. (Andet), El-Haj-Ali, M. (Andet), Grini Nielsen, S. (Andet), Fereczkowski, M. (Andet), Bianchi, F. (Andet), Dau, T. (Andet), Santurette, S. (Andet) & Neher, T. (Andet)  
9. sep. 2019 → 13. sep. 2019

**Evaluation of six hearing-aid processing strategies from the perspective of auditory profiling: Insights from the BEAR project**

Wu, M. (Oplægsholder), Sanchez-Lopez, R. (Andet), El-Haj-Ali, M. (Andet), Nielsen, S. G. (Andet), Fereczkowski, M. (Andet), Dau, T. (Andet), Santurette, S. (Andet) & Neher, T. (Andet)  
21. aug. 2019 → 23. aug. 2019

**Robust auditory profiling: Improved data-driven method and profile definitions towards a better hearing rehabilitation**

Sanchez-Lopez, R. (Oplægsholder), Fereczkowski, M. (Andet), Neher, T. (Andet), Santurette, S. (Andet) & Dau, T. (Andet)  
21. aug. 2019 → 23. aug. 2019

**Auditory profiling as a tool for characterizing individual hearing deficits: Data-driven analysis of the results of the BEAR test battery**

Sanchez-Lopez, R. (Andet), Grini Nielsen, S. (Andet), El-Haj-Ali, M. (Andet), Cañete, O. (Andet), Wu, M. (Andet), Fereczkowski, M. (Andet), Bianchi, F. (Andet), Neher, T. (Oplægsholder), Dau, T. (Andet) & Santurette, S. (Andet)  
23. maj 2019

**Hearing aid processing strategies for listeners with different auditory profiles: Insights from the BEAR project**

Wu, M. (Andet), Sanchez-Lopez, R. (Andet), El-Haj-Ali, M. (Andet), Grini Nielsen, S. (Andet), Fereczkowski, M. (Andet), Bianchi, F. (Andet), Dau, T. (Andet), Santurette, S. (Andet) & Neher, T. (Oplægsholder)  
23. maj 2019

**Technical evaluation of hearing-aid fitting parameters for different auditory profiles**

Sanchez-Lopez, R. (Oplægsholder), Bianchi, F. (Andet), Fereczkowski, M. (Andet), Piechowiak, T. (Andet), Hau, O. (Andet), Syskind Pedersen, M. (Andet), Behrens, T. (Andet), Neher, T. (Andet), Dau, T. (Andet) & Santurette, S. (Andet)  
27. maj 2018 → 30. maj 2018

**1. Formal educational training**

a.

"Teaching and Learning" course at DTU

**2. Administrative tasks relating to education**

a

Co-organizer of exercises in Auditory

Signal Processing course at the Technical University of Denmark (DTU).

i. Time: Single year in the period 2011-2018

ii. Content: Revising exercise content

b.

Co-organizer of the "Mathematics for audiologists" course at SDU

i. Time: 2021-2022

ii. Content: programme, lectures and exercises organization

**3. Experience of study programmes, supervision and examinations**

a.

Lecturer and examiner of the "Mathematics for audiologists"

b.

Teaching assistant at the "Linear signals and systems" course at DTU

i. Time: 2009, 2010

ii. Content: exercise supervision

c.

Teaching assistant at the “Auditory signal processing” course at DTU

i. Time: 2011-2020

ii. Content: exercise supervision

d.

Co-supervisor of BSc students (x3) at SDU

i. Kathrine Sønderhøj Nørager Jørgensen

1. Time: 2020

ii. Amalie Maklary Rudbeck-Rønne

1. Time: 2020

iii. Benedikte Degn Mikkelsen

1. Time: 2021

e.

Co-supervisor of MSc students (x2) at DTU

i. Konstantinos Anyfantakis

1. Time: 2017

2. Title: “Comparison of objective and subjective measures of cochlear compression”

ii. Josefine Munch Sørensen

1. Time: 2017

2. Title: “The Influence of Noise and Second Language on Conversational Dynamics”

f.

Co-supervisor of PhD students (x4) at DTU and SDU

i. Borys Kowalewski

1. Time: 2016-2019

2. Title: “Assessing the effects of hearing-aid dynamic-range compression on auditory signal processing and perception”.

ii. Raul Sanchez-Lopez

1. Time: 2017-2020

2. Title: “Clinical auditory profiling and profile-based hearing-aid fitting”

iii. Mengfan Wu

1. Time: 2018-2021

2. Title: “Investigating Speech-in-Noise Outcome in Older Hearing-Aid Users Using Auditory Profiling”

iv. Lukas Joergensen

1. Time: 2022 –

2. Title: Ongoing

#### **4. Methods, materials and tools**

a.

Power-point slides and MATLAB-based animations

#### **6. Reflection on your own teaching practice and future development<sup>1</sup>, including student evaluations**

a.

Pre-recorded lectures (individual slides in Power Point with added voice and transcript) are appreciated by the students, who can watch the slides more than once, if necessary.

b.

In terms of lectures and exercises, my experience suggests that students need concrete tasks and clear expectations, so they know what and when to do. Therefore, assignments are a necessity.