

Abigail Anne Kressner

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Education

- 2011-2015 Ph.D. · Electrical and Computer Engineering · Georgia Institute of Technology
- 2009-2011 M.S. · Electrical and Computer Engineering · Georgia Institute of Technology
- 2008 Audiology · Vanderbilt University
- 2004-2007 B.S. · Biomedical Engineering · Washington University in St. Louis

Positions

- 2019-present Assistant Professor · Technical University of Denmark and Rigshospitalet
- 2017 Visiting Postdoctoral Researcher · Cochlear, Ltd · Melbourne, Australia
- 2015-2019 Postdoctoral Researcher · Technical University of Denmark
- 2014-2015 Visiting Scholar · National Acoustic Laboratories · Sydney, Australia
- 2008 Research Intern · Widex A/S · Værløse, Denmark
- 2007 Research Intern · Knowles Electronics, LLC · Illinois, USA
- 2006 Research Intern · AuSIM, Inc · California, USA

Research support

- 2022-2023 Project grant co-funded by GN Resound, Widex, and Demant (PI; DKK 1.5m)
- 2015-2017 Postdoctoral grant from Det Frie Forskningsråd (DFF; Danish Council for Independent Research; DKK 1.8m)
- 2014-2015 National Science Foundation (NSF) Graduate Research Opportunities Worldwide (GROW; AUD 20k)
- 2010-2015 National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP; USD 138k)
- 2010-2013 National Defense Science & Engineering Graduate (NDSEG) Fellowship (USD 225k)

Awards

- 2014 International Hearing Aid Conference (IHCON) Scholarship
- 2014 Chih Foundation Research Award
- 2009-2013 President's Fellowship · Georgia Institute of Technology
- 2011 ISAAR and GN Foundation Young Scientist Conference Scholarship
- 2010 21st Annual SAIC Student Paper Competition · First place
- 2004-2007 Jeffrey & Nancy Balter Biomedical Engineering Scholar · Washington University in St. Louis

Selected publications

West, N. C., Kressner, A. A., Baungaard, L. H., Sandvej, M. G., Bille, M., & Cayé-Thomasen, P. (2020). Nordic results of cochlear implantation in adults: speech perception and patient reported outcomes. *Acta Oto-Laryngologica*, 140(11), 939–947.

Bentsen, T., Mauger, S. J., Kressner, A. A., May, T., & Dau, T. (2019). The impact of noise power estimation on speech intelligibility in cochlear- implant speech coding strategies. *The Journal of the Acoustical Society of America*, 145(2), 818–821.

Kressner, A. A., May, T., & Dau, T. (2019). Effect of Noise Reduction Gain Errors on Simulated Cochlear Implant Speech Intelligibility. *Trends in Hearing*, 23, 1–12.

Kressner, A. A., Westermann, A., & Buchholz, J. M. (2018). The impact of reverberation on speech intelligibility in cochlear implant recipients. *The Journal of the Acoustical Society of America*, 144(2), 1113–1122.

Bentsen, T., May, T., Kressner, A. A., & Dau, T. (2018) The benefit of combining a deep neural network architecture with ideal ratio mask estimation in computational speech segregation to improve speech intelligibility, *PLOS ONE*, 13(5):e0196924.

Bentsen, T., Kressner, A. A., Dau, T., & May, T. (2018) The impact of exploiting spectro-temporal context in computational speech segregation. *Journal of the Acoustical Society of America*, 143(1):248-259.

Kressner, A. A., May, T., & Rozell, C. J. (2016) Outcome measures based on classification performance fail to predict the intelligibility of binary-masked speech. *Journal of the Acoustical Society of America*, 139(6):3033-3036.

Kressner, A. A., Westermann, A., Buchholz, J. M., & Rozell, C. J. (2016). Cochlear implant speech intelligibility outcomes with structured and unstructured binary mask errors. *The Journal of the Acoustical Society of America*, 139(2), 800–810.

Kressner, A. A., & Rozell, C. J. (2015). Structure in time-frequency binary masking errors and its impact on speech intelligibility. *The Journal of the Acoustical Society of America*, 137(4), 2025.

Kressner, A. A., Anderson, D. V., & Rozell, C. J. (2013) Evaluating the generalization of the Hearing Aid Speech Quality Index (HASQI). *IEEE Transactions in Audio, Speech and Language Processing*, 21(2):407-415.

Student supervision

PhD co-supervision: 4; MSc/BSc co-supervision: 6

Selected professional activities

Ear, Nose, and Throat Surgical & Audiological Clinic's Research Council; Member of the Danish Sound Cluster's working group on 'Healthcare and welfare'; Organizing Committee for the International Symposium on Auditory and Audiological Research; Technical Committee for the Baltic-Nordic Acoustic Meeting 2020; Editor for the Proceedings of the International Symposium on Auditory and Audiological Research; Topic Editor for Audiology Research; Reviewer for *Journal of the Association for Research in Otolaryngology*, *Trends in Hearing*, *Speech Communication*, *Journal of the Acoustical Society of America*, *IEEE Transactions on Audio, Speech, and Language Processing*