

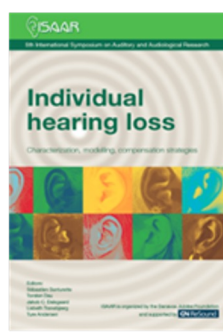
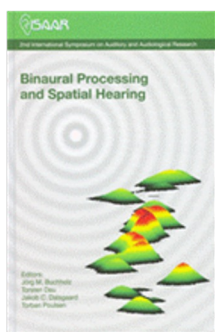
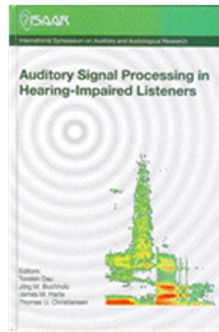


ISAAR/Clarity Discussion Session

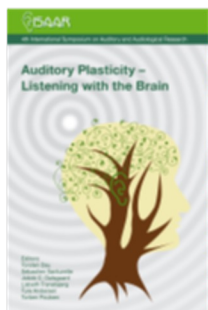
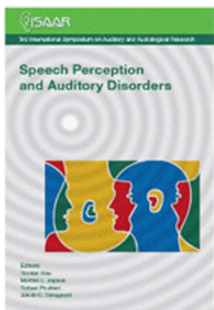
Concept of ISAAR:

- ISAAR 2025 is the 10th International Symposium on Auditory and Audiological Research
- ISAAR is built around a few central themes bringing together researchers from different disciplines.
- The goal is not only to present cutting-edge work within a field, but also to create opportunities to learn from each other across fields.
- The ISAAR symposia were supported GN ReSound until 2021.
- Since 2023, ISAAR has been supported by the William Demant Foundation.
- ISAAR themes have included ...

ISAAR previous themes:



- ISAAR 2007: *Auditory signal processing in HI listeners*
- ISAAR 2009: *Binaural processing and spatial hearing*
- ISAAR 2011: *Speech perception and auditory disorders*
- ISAAR 2013: *Auditory plasticity: Listening with the brain*
- ISAAR 2015: *Individual hearing loss: Characterization, ...*
- ISAAR 2017: *Adaptive processes in hearing*
- ISAAR 2019: *Auditory learning in biol. and artificial systems*
- ISAAR 2021: *The auditory system throughout life: ...*



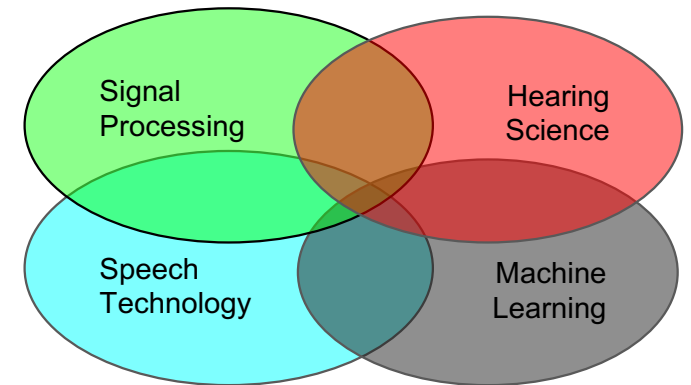
Clarity challenges

- 5-year project funded by the UK Engineering and Physical Sciences Research Council (EPSRC)
- Started in October 2019 and will run until October 2025
- “Challenges to Revolutionise Hearing Device Processing”
- Purpose of funding is to allow us to run a series of open machine learning challenges targeting hearing aid speech-in-noise processing.



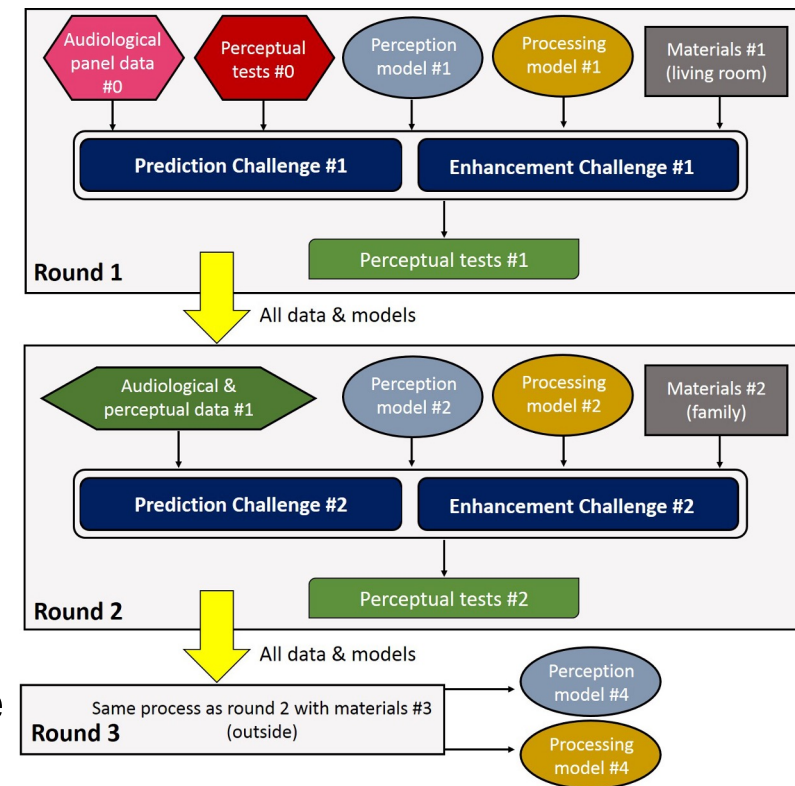
Clarity challenges

- Background
 - 430 million people with a disabling hearing loss worldwide.
 - Only 17% have accessed hearing treatment
 - Advances in ML have transformed speech technology
- Aims
 - Bring communities and ideas together through organisation of open 'challenges'
 - Broaden base of researchers addressing hearing technology



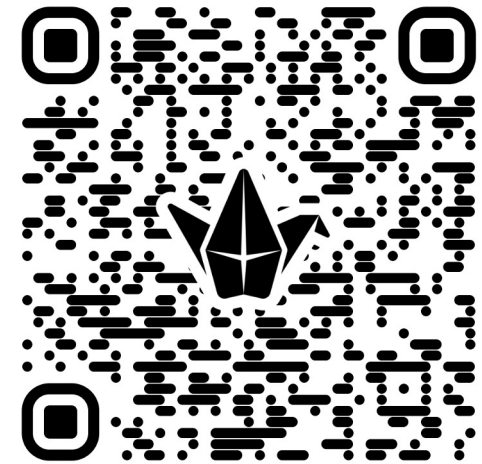
Clarity challenges

- Two parallel challenges: enhancement (hearing aid signal processing) and prediction (speech intelligibility prediction)
- Three rounds over five years
 - Increasingly challenging listening scenarios
 - Each round will build on previous one
- First round launched Jan. 2021
- Workshop to share the third prediction challenge results today!



Discussion

- Topics to be discussed: future challenges and sustainability of future challenge activities
- Padlet for sharing questions and summaries of the discussions at the two sites
 - Split into Clarity and ISAAR columns



Padlet QR code

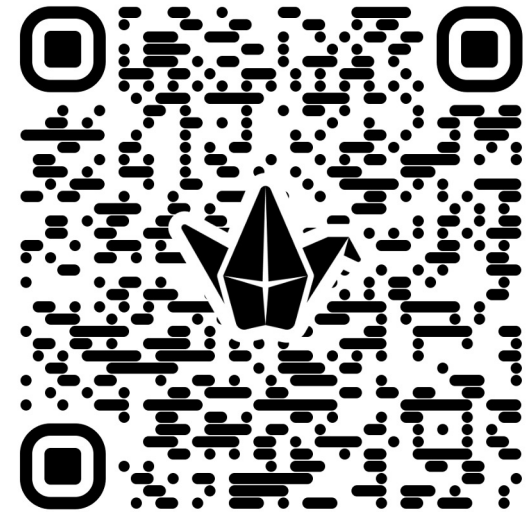
Discussion

Topics to be discussed: future challenges and sustainability of future challenge activities

- Two rounds of about 10 minutes each.
- Self-organise into small groups.
- One person in each group to summarise points and add to the padlet

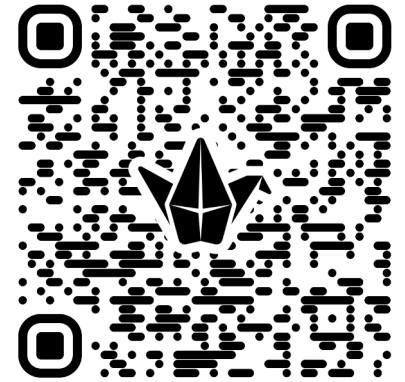
Topic 1: future challenges

- What are the future priorities for hearing device machine learning challenges?
- What are the needs of hearing device users now and in future?
- What opportunities does machine learning provide for addressing these needs?
What opportunities will it provide in future?



Topic 2: sustainability of future challenge activities

- How do we ensure the sustainability of future challenges?
 - Consider relevance and impact, challenge design/technical aspects, EDI and accessibility, and community engagement
 - How do we maintain the infrastructure? What collaborations/partnerships would make sustainability more likely? How do we build on the existing community? What could we do to communicate our impact and value well to potential collaborators, partners and future leaders of the challenges?



Summary/Conclusion

- Thanks for your input
- Any further thoughts? Please communicate with the Clarity project team or add to the Padlet.

