

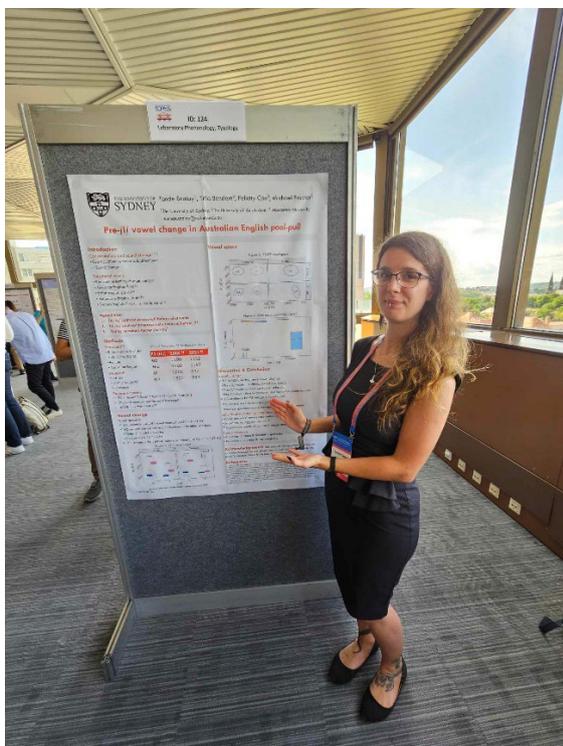
## Overview

In 2023, I was fortunate to attend and present both at the ICPHS and INTERSPEECH conferences funded in part by the ASSTA Conference Travel Awards programme. For those who are unfamiliar with this grant programme, ASSTA offers \$500 (AUD) to help allay the costs of travelling from Australia or New Zealand to present peer-reviewed papers at overseas conferences. I am immensely grateful for ASSTA to support my presentations both at ICPHS and INTERSPEECH!

### ICPhS 2023

International Congress of Phonetic Sciences (ICPhS) is organised by the International Phonetic Association every four years. The theme of ICPhS 2023 was “Intermingling Communities and Changing Cultures” to address and explore how language contact caused by a surge in migration impact speech patterns, enrich individuals, and open promising research potentials.

I presented work on the changing sounds of Australian English. I looked at the potential ongoing pre-/l/ vowel merger between the vowels of *pool-pull*. Consistently with vowel change, I found that young speakers produce *pool-pull* with smaller vowel contrast than older speakers. However, the evidence for merger was inconclusive due to large intra-speaker variation among young speakers. (Full paper [here](#).) This research sheds light on coarticulatory vowel change and helps us compare Australian English to other accents of English showing a variety of patterns for pre-/l/ vowel changes. I particularly liked having conversations with researchers working on /l/ and pre-/l/ vowels in other languages ranging from American English and Malayalam to Korean. The plenary talk “The Larynx as an articulator” by John H. Esling helped me connect my work on phonetics to my work on voice disorders at the Dr. Liang Voice Program.



### INTERSPEECH 2023

INTERSPEECH is organised by the International Speech and Communication Association every year. It is an important meeting point between researchers in phonetics and speech technology, thus it allowed me to get out of my comfort zone and attend a variety of lectures on machine learning and

learn about automatic speech recognition. Despite the heavy focus on speech technology, there appeared to be an emerging interest in bridging the gap between speech science and technology. For instance, researchers working on parent-child interaction turned their acoustic corpus consisting of English-Mandarin code-switching child directed speech into a language identification and diarisation challenge to be solved by researchers in speech technology. There was a special session titled Interfacing Speech Technology and Phonetics, given by Petra Wagner, working in linguistics, and Reinhold Haeb-Umbach, working in engineering, where several people from the audience asked what kind of phonetic research can best inform research in speech technology. Thanks to ISCA, I had the chance to discuss collaborations between phonetics and speech technology with Zhengjun Yue during a one-on-one mentoring session, where we discussed how studying the vowel space of dysarthric speech might assist automatic speech recognition for speakers with dysarthria, an under-resourced population.

The theme of INTERSPEECH 2023 was Inclusive Spoken Language Science and Technology – Breaking Down Barriers, asking participants to focus on whether their work is relevant for the widest possible range of users. In the spirit of inclusive spoken language science, I presented work on differences in /s/ production between gay and straight male speakers of Australian English showing that gay men produce /s/ with a higher centre of gravity (link [here](#)). This work contributes to a marginalised minority's right for their language to be seen by rigorous scientific research. Although the work received some pushback due to fears that the results might be used to develop methods for automatically identifying gay speakers, I had good conversations with those who came to my poster. On one occasion, explaining the basics of sociophonetic research (e.g., we collected the data instead of using a public corpus, store the recordings securely and will not release them; and we used linear mixed models, not an automatic classification method) alleviated fears. For me, this highlighted the importance of having a shared vocabulary between researchers in phonetics and speech technology.

**Attending ICPHS and INTERSPEECH** gave me the opportunity to network, receive feedback, and keep up to date with new research projects. In line with the themes of intermingling cultures and inclusive research, attendees at both conferences encouraged me to consider individual variation in greater detail. Presenters addressed ethical questions in research. For example, Titia Benders' keynote at ICPHS highlighted the importance of working on under-researched languages and language communities, Pavel Trofimovich discussed a framework for responsible innovation in his ICPHS keynote, and Nicole Holliday Interspeech warned us how speech technology can further marginalise and stereotype minority users and discussed how to avoid doing it.

