

Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019

# ICPhS2019

5-9 August 2019 | Melbourne Australia



### 19TH INTERNATIONAL CONGRESS OF PHONETIC SCIENCES 2019

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### **Acknowledgement of Country**

Womindjeka / Wominjeka! Welcome to Melbourne.

ICPhS 2019 respectfully acknowledges the Traditional Custodians of the land, the Boon Wurrung and Wurundjeri peoples of the Kulin Nation and pays respect to their Elders, past and present.

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### WELCOME TO ICPhS 2019

### Welcome from the Chair of the Organising Committee for ICPhS 2019

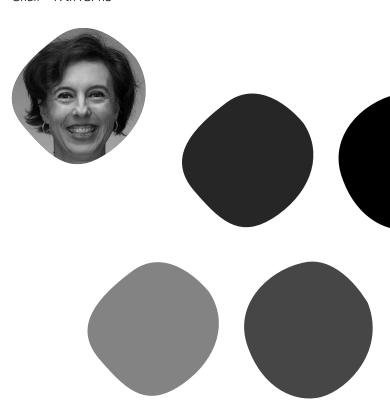
On behalf of the Organising Committee, I am very excited to welcome you to Melbourne and to Australia for the 19th International Congress of Phonetic Sciences! Melbourne is my beloved home town, and in the words of our national anthem, "For those who've come across the seas, we've boundless plains to share". We're very grateful to those of you who've made the long journey to be with us here today and I hope you'll take a little bit of time to explore this beautiful and big country of ours. Whilst the weather in Melbourne is not very inviting in August, it is much better if you are able to travel "up North". Nonetheless, for those of you who appreciate the cooler climes, Melbourne is wonderful in winter too, with lots of cosy cafes and restaurants, as well as arts and cultural venues and various sporting activities (including our local Australian football). I also hope that most of you will make time to go to the beach - it is only a short tram ride from the congress venue and a lovely chance to be with nature in an otherwise very busy city.

Our congress themes for ICPhS 2019 are "Endangered Languages" and "Major Language Varieties". Melbourne is the fastest growing city in Australia, with migrants from all over the world; and although English is the most widely-spoken language, there is a very large variety of community languages spoken here as well. We are also very proud in Australia of our Aboriginal heritage; and although indigenous communities in Australia suffered greatly as a result of British settlement - leading to tremendous language loss in certain regions - some strong language communities and cultures remain despite invasion. I am also pleased to note that ICPhS 2019 is being supported by our "Kiwi cousins" in New Zealand, who like us speak a "New World" variety of the English language brought to us by the British settlers, as well as te reo Māori, the indigenous language of New Zealand.

I would like to express my gratitude to several organisations which have been instrumental in

bringing ICPhS to Melbourne in 2019. I would first of all like to thank the Australasian Speech Science and Technology Association, which celebrated its 30th anniversary in 2018, as well as the International Phonetic Association; the two host organisations for this flagship congress of the IPA. I would also like to thank the various university sponsors - La Trobe University, Macquarie University, Victoria University of Wellington, Western Sydney University, and the Australian Research Council Centre of Excellence for the Dynamics of Language - for providing generous funding from the outset. Their support gave us the confidence to bring this event to you today. It is the first time ICPhS is being held in the Southern Hemisphere, and we hope that you will find it a most memorable experience.

**Marija Tabain** Chair - 19th ICPhS



## Welcome from the President of the Permanent Council of the ICPhS

Dear colleagues,

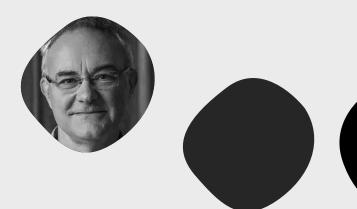
On behalf of the Permanent Council for the Organisation of the International Congress of Phonetic Sciences, it is a great honour to welcome you to the 19th International Congress of Phonetic Sciences in Melbourne. It is the first time that the Congress is being held in Australasia; indeed the first, but hopefully not the last, time that the Congress is taking place in the southern hemisphere. And about time, too! Australian and New Zealand phonetics have a long and rich tradition and work at a number of different locations has built up a formidable reputation of excellent phonetic research, not least for the careful and comprehensive analysis of many of the severely endangered indigenous languages, ranging from traditional phonetic description to detailed instrumental analysis. It is also very fitting therefore that, for the first time, this Congress has an explicit theme highlighting the importance, but also the problems, of analysing and documenting endangered languages both here and around the world.

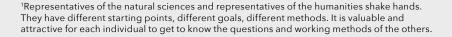
Quantitatively, despite its name, the ICPhS has been a European congress. With Montreal in 1971 and San Francisco in 1999, the ICPhS only just managed 2 out of 14 non-European venues in the 20th century. But we are fast becoming statistically better. Including San Francisco again, if I may, the last twenty years have seen 50% of the ICPhS meetings being hosted at non-European venues. It would be a good figure to maintain. Regardless of location, though, the ICPhS has always been an inclusive and, from its outset, a strongly interdisciplinary congress, embracing not only a large number of different colleagues from around the world but, more importantly, bringing together different disciplines and methodologies to examine the production, transmission and perception of speech. So, the words of Wilhelm Horn in his opening address to the second ICPhS in 1935 are as relevant today as they have ever been:

"Vertreter der Naturwissenschaften und Vertreter der Geisteswissenschaften reichen sich die Hand. Sie haben verschiedene Ausgangspunkte, verschiedene Ziele, verschiedene Methoden. Es ist für jeden einzelnen wertvoll und reizvoll, die Fragestellung und die Arbeitsweise der anderen kennen zu lernen.1" At the same time, I hope that nowadays we analyse our data and interpret our results a little more soberly than some of our colleagues used to. In her analysis of palate shape at the same congress, Kaiser makes the somewhat sweeping remark, "[a]s a contribution to the knowledge of the relation between speech and personality I might say that about the speakers with low palates there was, to me at least, something simple and honest, whereas the other speakers gave me the impression of being more complicated. This would agree well with the statements that the high palate is a mark of civilization and of neurosis."

I would like to finish by expressing our heartfelt thanks to the local organising committee, both on behalf of the Permanent Council and, also on behalf of all of those attending, for all the hard work that you have put into preparing the Congress, work that started well before the last meeting in Glasgow when the initial bid to host the Congress was submitted. On top of the administrative stamina needed to organise this Congress, you have put together an exciting scientific programme with almost 800 contributions from over 1,400 authors. I hope that you, and I am sure that the rest of us, will profit from the fruits of your hard work.

**Adrian P. Simpson**President of the Permanent Council for the Organisation of the ICPhS





### Welcome from the President of the Australasian Speech Science and Technology Association (ASSTA)

On behalf of the Australasian Speech Science and Technology Association (ASSTA) I would like say g'day and to extend a very warm welcome to all delegates, invited guests and friends attending the 19th ICPhS in Melbourne 2019. A consortium of phoneticians from eight universities across Australia and New Zealand has been instrumental in bringing the congress together. This dedicated band has worked tirelessly over the past four years to create an event that we believe will excite, engage and enlighten in both expected and unexpected ways.

We have a very long tradition of excellence in phonetic research in Australia and New Zealand. Our professional body ASSTA was formed in 1988 with the aim of advancing the understanding of speech science and fostering interdisciplinary speech research. A major focus of ASSTA is to bring together researchers with a shared passion for phonetics. It is therefore a great privilege to host the flagship congress of the IPA and to invite researchers from across the globe to attend the first ICPhS to be held in the Southern Hemisphere.

ASSTA is committed to supporting not only established researchers but to nurturing emerging generations of speech scientists. ICPhS 2019 gives students and early career researchers the opportunity to engage with luminaries in the field, to experience first-hand the exhilaration of lively discussion and the exchange of cutting-edge ideas. We hope it also engenders a sense of belonging to a community of scholars and inspires future careers.

The United Nations General Assembly has declared 2019 the International year of Indigenous Languages so it is fitting that 'Endangered Languages' is one of the major themes of this congress. Tragically, an estimated 90 per cent of Aboriginal and Torres Strait Islander languages are endangered. Phoneticians are making a positive contribution to endangered languages in Australia and around the world through careful phonetic documentation and analysis, and engagement with communities in an effort to help raise awareness of indigenous languages and improve language preservation, promotion and revitalisation.

The second congress theme 'Major Language

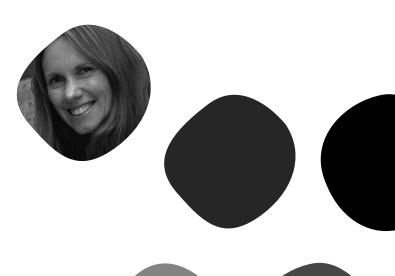
Varieties' is also of importance in this part of the world. Australia is a highly multicultural society and home to a wide variety of migrant languages from Europe, Asia, Africa and the Middle East. Of course, Australian and New Zealand English are two 'New World' Englishes, and te reo Māori, a language that is being actively recovered and protected, is an official language of New Zealand. We have a rich history of phonetic research involving these interesting varieties.

Those of you who have attended our biennial ASSTA conference in the past - the Australasian International Conference on Speech Science and Technology (SST) - will know that a highlight of that event is the 'Spectrogram Reading Competition' which has been a regular feature of the conference dinners for over 30 years. We are delighted to bring the 'Spectrogram Reading Competition' to the 2019 ICPhS congress dinner. The competition is fiercely fun and I know you will get a kick out of the competitive spirit it unleashes in even the mildest of phoneticians.

Conferences such as this would not be possible without the generosity of many individuals and organisations. We would like to thank our inspiring keynote speakers, the scientific committee and reviewers, institutional and corporate sponsors, the organising committee, student helpers, our professional conference organiser Arinex, and you, our delegates, for supporting ICPhS in 2019.

We welcome you to Melbourne and hope that you can explore parts of Australia (and hopefully make the trip 'across the ditch' to New Zealand), to engage with the locals and relax in this beautiful part of the world. We trust that ICPhS will be remembered for ideas exchanged, collaborations forged, exciting insights and inspiration gained, but most importantly for old friends reunited and new friendships made.

**Felicity Cox** *President of ASSTA* 



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