

Monday, May 5th



10th International Seminar on Speech Production
Cologne, Germany • 5-8 May 2014

Monday, May 5th

10.00-10.30 Opening Session

Coffee break

11.00-12.00

Fred Cummins:

The remarkable unremarkableness of joint speech

Lunch

13.00-14.40 Oral Session #1: Modelling of speech production

13.00-13.20 Kiyoshi Honda, Jianguo Wei and Jianwu Dang.
Toward a model of the pharynx

13.20-13.40 Vikram Ramanarayanan, Louis Goldstein and Shrikanth Narayanan.
Speech motor control primitives arising from a dynamical systems model of vocal tract articulation

13.40-14.00 Christina Hagedorn, Adam Lammert, Mary Bassily, Yihe Zu, Uttam Sinha, Louis Goldstein and Shrikanth Narayanan.
Characterizing post-glossectomy speech using real-time MRI

14.00-14.20 Yves Laprie, Béatrice Vaxelaire and Martine Cadot.
Geometric articulatory model adapted to the production of consonants

14.20-14.40 Pascal Perrier and Ralf Winkler.
Contribution of oro-facial morphology and biomechanics to intra-speaker token-to-token and coarticulation variability: a modeling study

Coffee break

15.00-16.00 Oral Session #2: Entrainment

15.00-15.20 Mark Tiede, Christine Mooshammer, Dolly Goldenberg and Douglas Honorof.
Adaptation of trajectory shapes during conversation

15.20-15.40 Eleanor Drake, Sonja Schaeffler and Martin Corley.
Articulatory effects of prediction during comprehension: an ultrasound tongue imaging approach

15.40-16.00 Amélie Rochet-Capellan and Susanne Fuchs.
Are breathing profiles specific to the turn type in unconstrained face-to-face dialogue?

Monday, May 5th

16.00-18.00 Poster session #1: Coarticulation

Daniel Recasens and Mertixell Mira.

Modelling voicing assimilation in Catalan consonant clusters

Christina Otto, Melanie Weirich and Adrian Simpson.

Spectral and lingual correlates of /r/ in East Thuringia

Donald Derrick, Romain Fiasson and Catherine Best.

Coordination of tongue tip and body in place differences among English coronal obstruents

Phil Howson and Alexei Kochetov.

An EMA examination of the Czech alveolar and post-alveolar fricatives

Stefania Marin.

Intra-cluster timing in Romanian stop-initial onsets

Natalia Zharkova, Robin Lickley and William Hardcastle.

Development of lingual coarticulation and articulatory constraints between childhood and adolescence: an ultrasound study

Ivan Yuen.

An ultrasound study of unreleased plosive consonant sequence in Cantonese

Manfred Pastätter and Marianne Pouplier.

The temporal coordination of Polish onset and coda clusters containing sibilants

Stefanie Jannedy and Melanie Weirich.

Linguistic influences on diphthong realization of /ɔɪ/ in Hood German

Chakir Zeroual, Philip Hoole, Adamantios Gafos and John Esling.

The gestural overlap within word medial stop-stop sequences in Moroccan Arabic

Methodology

Simon Preuß, Christiane Neuschaefer-Rube and Peter Birkholz.

Evaluation of an OPG-controlled animated vocal tract model as a biofeedback system

Samer Al Kork, Aurore Jaumard-Hakoun, Martine Adda-Decker, Angélique Amelot, Lise Buchman, Patrick Chawah, Gerard Dreyfus, Thibaut Fux, Claire Pillot-Loiseau, Pierre Roussel, Maureen Stone, Kelele Xu and Bruce Denby.

A multi-sensor helmet to capture rare singing, an intangible cultural heritage

Sonja Schaeffler, James M. Scobbie and Felix Schaeffler.

Measuring Reaction Times: vocalisation vs. articulation

Thibaut Fux, Angélique Amelot, Lise Crevier-Buchman, Claire Pillot-Loiseau and Martine Adda-Decker.

On the use of accelerometer sensors to study nasality in speech and singing voice

Martijn Wieling, Fabian Tomaschek, Denis Arnold and Harald Baayen.

Large-scale analysis of articulatory trajectories using generalized additive modeling

Jangwon Kim, Asterios Toutios, Yoon-Chul Kim, Yinghua Zhu, Sungbok Lee and Shrikanth Narayanan.

USC-EMO-MRI corpus: an emotional speech production database recorded by real-time magnetic resonance imaging

Ingo Feldhausen.

Modeling individual variation in prosody: the case of clitic left-dislocations in Spanish.

Monday, May 5th

Quasi-contrastive phonetic categories

Mária Gósy.

Phonetic properties of Hungarian hiatus fillers versus intervocalic palatal approximants: Physical realities and theoretical implications

Tekla Etelka Grácz and Anna Kohári.

Multiple bursts in Hungarian voiceless plosives and VOT measurements

Nora Fangel-Gustavson, Rachid Ridouane and Bruce Morén-Duolljá.

Quantity contrast in Lule Saami: a three-way system

Ozlem Unal-Logacev, Susanne Fuchs and Marzena Zygis.

Soft 'g' in Turkish: evidence for sound change?

Fayssal Bouarourou, Béatrice Vaxelaire, Yves Laprie, Marion Béchet and Rudolph Sock.

Plosive and fricative geminates in Tarifit: an articulatory and acoustic study

Altijana Brkan, Angélique Amelot and Jacqueline Vaissière.

Anticipatory nasalization in four languages: American English, French, Bosnian, and Norwegian

Plasticity in speech production and perception

Véronique Delvaux, Kathy Huet, Myriam Piccaluga and Bernard Harmegnies.

Assessing the individual ability to reproduce non-familiar speech sounds

Wafaa Alshangiti and Bronwen G. Evans.

Investigating the domain-specificity of phonetic training for second-language learning: comparing the effects of production and perception training on the acquisition of English vowels by Arabic learners of English

Benedicte Grandon and Hiyon Yoo.

Does prosodic similarity matter in L2 production? The case of Korean learners of French

Wang Xiaou, Thomas Hueber and Pierre Badin.

On the use of an articulatory talking head for second language pronunciation training: the case of Chinese learners of French

Haruka Saito.

Can articulatory gestures be learned by ear? Lip movements by adults imitating a front rounded vowel

Judit Bóna and Anita Auszmann.

Voice onset time in language acquisition: data from Hungarian

Pierre Badin, Thomas R Sawallis, Simon Crépel and Laurent Lamalle.

Comparison of articulatory strategies for a bilingual speaker: preliminary data and models

Lucie Ménard, Amélie Prémont, Pamela Trudeau-Fisette, Christine Turgeon, Dominique Côté and Mark Tiede.

Reaching a goal with limited means: a study of contrastive focus in children and adults

Welcome @ Mediapark lake

Tuesday, May 6th

Tuesday, May 6th

9.00-10.40 **Session #3: Methodology**

- 9.00-9.20 Peter Birkholz.
Enhanced area functions for noise source modeling in the vocal tract
- 9.20-9.40 Nichole Scheerer and Jeffery Jones.
Making the magnitude of auditory feedback errors predictable influences both vocal and event-related responses.
- 9.40-10.00 Zeynab Raeesy, Sylvia Rueda, Jayaram Udupa and John Coleman.
A new technique for automatic shape extraction from vocal tract MRI
- 10.00-10.20 Samuel Silva and António Teixeira.
Systematic and quantitative analysis of vocal tract data: intra- and inter-speaker analysis
- 10.20-10.40 Jangwon Kim, Naveen Kumar, Sungbok Lee and Shrikanth Narayanan.
Enhanced airway-tissue boundary segmentation for real-time magnetic resonance imaging data

Coffee break

11.00-12.00

Stefanie Shattuck-Hufnagel: <i>The role of prosody in speech production planning</i>

Lunch

13.00-14.20 **Session #4: Prosody and planning**

- 13.00-13.20 Melissa Redford, Jessica Stine and Eric Vatikiotis-Bateson.
A question of scope? Direct comparison of clear and in-focus speech productions
- 13.20-13.40 Jason A. Shaw, Wei-Rong Chen, Michael Proctor, Donald Derrick and Elita Dakhoul.
On the inter-dependence of tonal and vocalic production goals in Mandarin Chinese
- 13.40-14.00 Sandra Peters and Felicitas Kleber.
Articulatory mechanisms underlying incremental compensatory vowel shortening in German
- 14.00-14.20 Valerie Hazan and Michèle Pettinato.
The emergence of rhythmic strategies for clarifying speech: variation of syllable rate and pausing in adults, children and teenagers

Coffee break

15.00-16.00

Christian A. Kell: <i>Oscillatory signatures of speech preparation and production</i>
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Tuesday, May 6th

16.00-18.00 Poster session #2: Speech preparation and neurolinguistics

Lucie Scarbel, Denis Beuitemps, Jean-Luc Schwartz and Marc Sato.

Sensory-motor interactions in speech perception, production and imitation: behavioral evidence from close shadowing, perceptuo-motor phonemic organization and imitative changes

Avril Treille, Coriandre Vilain, Thomas Hueber, Jean-Luc Schwartz, Laurent Lamalle and Marc Sato.

'Hearing tongue and seeing voices': neural correlates of audio-visuo-lingual speech perception

Mathew Karia, Martine Grice and Doris Mücke.

Acoustic analysis of dysarthric speech after a traumatic brain injury

Barbara Gili Fivela, Massimiliano M. Iraci, Vincenzo Sallustio, Mirko Grimaldi, Claudio Zmarich and Danilo Patrocínio.

Italian vowel and consonant (co)articulation in Parkinson's Disease: extreme or reduced articulatory variability?

Anna Oliynyk and Christian A. Kell

Dissociating feedforward and auditory and somatosensory feedback components of overt speech production using MEG

Eryk Walczak, Vicky Zhang, Tim Schoof, Jyrki Tuomainen and Peter Howell.

Cortical inhibition of the brainstem frequency following response in falling and rising tone production

Marc Sato, Coriandre Vilain, Laurent Lamalle and Krystyna Grabski.

Adaptive coding of orofacial and speech actions in motor and somatosensory spaces

Camille Fauth, Béatrice Vaxelaire, Jean-François Rodier, Pierre-Philippe Volkmar and Rudolph Sock.

A spatiotemporal study of speech in patients with recurrent nerve paralysis after thyroid surgery focusing on VOT

Pertti Palo, Sonja Schaeffler and James M. Scobbie.

Pre-speech tongue movements recorded with ultrasound

Prosody and articulation I

Willemijn Heeren.

Acoustic correlates of height in the production of whispered fricatives

Alexandra Markó.

Frequency of glottalization in Hungarian read and spontaneous speech

Ingo Feldhausen and Maria Del Mar Vanrell Bosh.

Prosody, focus and word order in Catalan and Spanish. An optimality theoretic approach

Paul Carter and Leendert Plug.

Prosodic marking, pitch and intensity in spontaneous phonological self-repair in Dutch

Melanie Weirich and Adrian Simpson.

Articulatory vowel spaces of male and female speakers

L. Ganushchak, A. Konopka and Y. Chen.

Focus planning during sentence production: an eye-tracking study

Annika Brehm, Alina Lausecker and Ingo Feldhausen.

The intonation of imperatives in Mexican Spanish

Tuesday, May 6th

Fabian Tomaschek, Benjamin V. Tucker, Martijn Wieling and Harald Baayen.
Vowel articulation affected by word frequency

Conceição Cunha, Jonathan Harrington and Ulrich Reubold.
Vowel coarticulation and undershoot in prosodically weakened positions

Nayla Matar, Cristel Portes, Leonardo Lancia, Thierry Legou and Fabienne Baidier.
Acoustic correlates of masculinity in voices of Lebanese women with Reinke's edema

Susanne Fuchs, Amélie Rochet-Capellan and Gregory Mills.
Is breathing in fast writing comparable to breathing in speech?

Marzena Zygis, Daniel Pape, Luis Jesus and Marek Jaskula.
How do voiceless consonant clusters contribute to intended intonation? A comparison of normal, whispered and semi-whispered speech.

András Beke, Mária Gósy, Viktória Horváth, Dorottya Gyarmathy and Tilda Neuberger.
Disfluencies in spontaneous narratives and conversations in Hungarian

Andrea Deme.
Formant strategies of professional female singers

Jana Schlegel, Sophie Egger and Bettina Braun.
Representation of German binomials: evidence from speech production

Ingmar Steiner, Peter Knopp, Sebastian Musche, Astrid Schmiedel, Angelika Braun and Slim Ouni.
Investigating the effects of posture and noise on speech production

Rachel Smith and Tamara Rathcke.
Interaction of segmental and prosodic timing in two dialects of English

Charlotte Wollermann, Oliver Niebuhr, Karin Görs and Bernhard Schröder.
Prosodic cues and varying dialogue context - Impact on exhaustivity of answers

Alexandra Vella, Flavia Chetcuti and Sarah Agius.
The role and prosodic characteristics of hesitation lengthening and filled pauses in speech planning in Maltese

James Kirby.
Acoustic transitions in Khmer word-initial clusters

Anne Hermes, Bastian Auris and Doris Mücke.
Computational modelling for syllabification patterns in Tashlhiyt Berber and Maltese

Francesco Cangemi, Martine Grice, Ralf Rummer and Judith Schweppe.
Orofacial gestures and emotion: Articulatory feedback or sound symbolism?

Christina Otto and Adrian Simpson.
Perception of dialectal variation of speakers from East-Thuringia

Wednesday, May 7th

9.00-10.20 **Session #5: Speech preparation and neurolinguistics**

- 9.00-9.20 Takayuki Ito, Vincent Gracco and David Ostry.
Neural correlates of temporal coding of somatosensory-auditory interactions in speech.
- 9.20-9.40 Nicolas Bourguignon, Shari Baum and Douglas Shiller.
The influence of lexical-perceptual integration on auditory-motor adaptation in speech production
- 9.40-10.00 John Houde, Caroline Niziolek, Naomi Kort, Zarinah Agnew and Srikantan Nagarajan.
Simulating a model of state feedback control of speaking
- 10.00-10.20 Johannes Becker, Doris Mücke, Martine Grice, Jil Pochmann, Lars Timmermann and Michael T. Barbe.
The effect of thalamic deep brain stimulation on speech production in patients with essential tremor

Coffee break

11.00-12.00

D. Robert Ladd: <i>Quasi-contrastive phonetic categories</i>

Lunch

13.00-14.40 **Session #6: Prosody and articulation**

- 13.00-13.20 Benjamin Parrell and Shrikanth Narayanan.
Interaction between general prosodic factors and language-specific articulatory patterns underlies divergent outcomes of coronal stop reduction
- 13.20-13.40 Henrik Niemann, Martine Grice and Doris Mücke.
Segmental and positional effects in tonal alignment: An articulatory approach
- 13.40-14.00 Caterina Petrone, Susanne Fuchs and Laura Koenig.
Changes of breathing activity under different focus conditions
- 14.00-14.20 Stefania Marin and Lia Saki Bucar Shigemori.
Vowel compensatory shortening in Romanian
- 14.20-14.40 Laurianne Georgeton, Tanja Kocjančič Antolík and Cécile Fougeron.
Domain initial strengthening and height contrast in French: acoustic and ultrasound data

Coffee break

15.00-16.00 Session #7: Quasi-contrastive phonetic categories

15.00-15.20 Marija Tabain, Anthony Jukes, Andy Butcher, Gavan Breen and Richard Beare.
Stop burst spectra in four languages: a comparison of 3-, 4-, 5- and 6-place systems

15.20-15.40 Kevin Roon, Eugen Klein and Adamantios Gafos.
Distractor effects on response times in fricative production

15.40-16.00 Catherine Best, Christian Kroos, Rikke Bundgaard-Nielsen, Brett Baker, Mark Harvey, Mark Tiede and Louis Goldstein.
Articulatory basis of the apical/laminal distinction: Tongue tip/body coordination in the Wubuy 4-way coronal stop contrast

16.00-18.00 Poster session #3: Coordination

Dorottya Gyarmathy and Mária Gósy.
On sublexical speech errors in spontaneous Hungarian speech

Nina Jeanette Hofferberth.
Resolution of lexical retrieval failures. Reaction time data in the tip-of-the-tongue paradigm

Antje Schweitzer and Natalie Lewandowski.
Social factors in convergence of F1 and F2 in spontaneous speech

Caterina Petrone, Céline Delooze, Léa Gomis, Marjorie Wims, Alain Ghio, Noémie Moreau and Laurent Renié.
Working memory and stress clash resolution in Multiple Sclerosis.

Modelling of speech production

Ian S. Howard and Piers Messum.
Teaching a computational model of an infant to speak its first words in three languages

Jianwu Dang, Chen Zhao, Jianguo Wei and Kiyoshi Honda.
A research on nasal coupling for non-nasalized sounds

Donna Erickson, Shigeto Kawahara, Jeff Moore, Caroline Menezes, Atsuo Suemitsu, Jangwon Kim and Yoshiho Shibuya.
Calculating articulatory syllable duration and phrase boundaries

Anocha Rugchatjaroen and David Howard.
The acoustics of constriction in a vocal tract model using 2D digital waveguide modelling

Manfred Pastätter and Marianne Pouplier.
The articulatory modeling of German coronal consonants using TADA

Yves Laprie, Michaël Aron, Marie-Odile Berger and Brigitte Wrobel-Dautcourt.
Studying MRI acquisition protocols of sustained sounds with a multimodal acquisition system

Mark Latash, Elizabeth Carlson and Irina Mikaelian.
Information density of speech: languages differ in time per degree-of-freedom in picture description tasks

Caitlin Smith.
Complex tongue shaping in lateral liquid production without constriction-based goals

Leonardo Lancia.
Abstract coupling structures underlying speech production

Wednesday, May 7th

Negar Mohaghegh Harandi, Jonghye Woo, Maureen Stone, Rafeef Abugharbieh and Sidney Fels.

Subject-specific biomechanical modelling of the tongue: analysis of muscle activations during speech

Samuel Silva and António Teixeira.

RT-MRI based dynamic analysis of vocal tract configurations: preliminary work regarding intra- and inter-sound variability

Prosody and articulation II

Mária Gósy, András Beke, Viktória Horváth and Judit Bóna.

Phonetic characteristics of filled pauses: the effects of speakers' age

Leendert Plug.

Acoustic correlates of prosodic marking in spontaneous self-repair in Dutch

Ingo Feldhausen.

Intonation and preverbal subjects in Italian

Tilda Neuberger, András Beke and Mária Gósy.

Acoustic analysis and automatic detection of laughter in Hungarian spontaneous speech

Michelina Savino.

Prosodic adaptation in game interaction between speakers of two Italian varieties

Luke Galea, Martine Grice, Anne Hermes and Doris Mücke.

Lexical and surface geminates in Maltese

Nicholas Henriksen and Lorenzo Garcia-Amaya.

Testing tune-to-text coordination positions in Manchego Spanish wh-question intonation

Stefan Baumann.

The importance of tonal cues for untrained listeners in judging prominence

Antonio Stella, Maria Del Mar Vanrell Bosh, Massimiliano M. Iraci, Pilar Prieto and Barbara Gili Fivela.

Intergestural coordination between tonal and oral gestures in Catalan, Italian and Spanish

Francisco Torreira and Emma Valtersson.

The role of phonetic detail in speech act production: rising continuation statements and polar questions in conversational French

Melanie Weirich, Adrian Simpson, Susanne Fuchs, Ralf Winkler and Pascal Perrier.

Mumbling is morphology?

Conference dinner & party @ Eigelsteintorburg

Authors' index

Thursday, May 8th

9.00-10.40 **Session #8: Coarticulation**

- 9.00-9.20 Jana Brunner, Christian Geng and Adamantios Gafos.
Phonetic effects in the timing of onset clusters
- 9.20-9.40 Marianne Pouplier, Philip Hoole, Jona Cederbaum, Sonja Greven and Manfred Pastätter.
Perceptual and articulatory factors in German fricative assimilation
- 9.40-10.00 Alexei Kochetov and N. Sreedevi.
Vowel coarticulatory effects on Kannada retroflex stops
- 10.00-10.20 Giuseppina Turco and Bettina Braun.
Non-local duration differences caused by consonantal length contrasts
- 10.20-10.40 Leonardo Lancia and Sven Grawunder.
Tongue-larynx interactions in the production of word initial laryngealization over different prosodic contexts: a repeated speech experiment.

Coffee break

11.00-12.00

Caroline Palmer, Erik Koopmans and Frances Spidle: <i>Auditory-motor integration in ensemble music performance</i>

Lunch

13.00-14.20 **Session #9: Coordination**

- 13.00-13.20 Philip Hoole and Lasse Bombien.
A cross-language study of laryngeal-oral coordination across varying prosodic and syllable-structure conditions
- 13.20-13.40 Anneke Slis and Pascal Van Lieshout.
The role of auditory information on gestural intrusions and reductions
- 13.40-14.00 Christian Kroos, Rikke Bundgaard-Nielsen and Catherine Best.
Exploring nonlinear relationships between speech face motion and tongue movements using mutual information
- 14.00-14.20 Maëva Garnier, Christophe Jeannin and Sarah Bouhake.
Efforts and coordination in the production of bilabial consonants

Closing session @ Komed