

SST 2002

Tuesday 3 December 2002

9.00am Registration
10.00am Opening
Associate Professor Kate Burridge
"In Forme of Speche is Chaunge"

10.30am Morning Tea
11.00am Concurrent Sessions

AUTOMATIC SPEECH RECOGNITION 1

Affine transformations in speaker adaptation - Why simpler is better
Trym Holter, Julien Epps, Arun Gopalakrishnan, Eric Choi

Modulation poisson rate estimation for doubly stochastic auditory processes
Owen Kenny, David Grayden, Anthony Burkitt

Improving the User Interface of Dictation Software
Ben Kraal, Michael Wagner, Penny Collings

Speaker Independent Acoustic Modeling for Large Vocabulary Bi-lingual
Continuous Speech Recognition
Dau-Cheng Lyu, Bo-hou Yang, Min-Song Liang

A Systolic Architecture of DTW for Speech Recognition
H. Jeong, Y. Kim

11.00am **PSYCHOLINGUISTICS 1**

The lexical statistics of competitor activation in spoken-word recognition
Anne Cutler, James M. McQueen, Maarten Jansonius, Saskia Bayerl

Goldilocks and the three beers: Word recognition and sound merger
Paul Warren, Megan Rae, Jen Hay

A single case investigation of foreign accent syndrome following traumatic
brain injury: implications for cognitive models of speech production
*Karen Croot, Natalie Molloy, Kathleen Rastle, Sallyanne Palethorpe, Ruth
Brunsdon, Kathleen Bakker*

Time for a pause
Kim Kirsner, John Dunn, Kathryn Hird, Tim Parkin, Craig Clark

Effects of Lexical Stress in Visual and Auditory Word Recognition
Joanne Arciuli, Linda Cupples

12.40pm Lunch
2.00pm Keynote
William Levelt

3.00pm Afternoon Tea
3.30pm Concurrent Sessions

PROSODY

Tonal Complexity as Conditioning Factor: More Depressing Wenzhou Dialect
Disyllabic Lexical Tone Sandhi
Philip Rose

Prosodic cues to compounds vs phrases and direction of embedding in
English, Japanese & Vietnamese
John Ingram, Thu Nguyen

Segmental evidence for metrical structure in Iwajja.
Bruce Birch

Intonation and Prosody of the Declarative Sentence Type in Seoul Korean
Hyung-Soon Yim

The Prosodic Nature of Kagoshima Japanese: Is It Different From Standard
Japanese?
Shunichi Ishihara

3.30pm

SIGNAL PROCESSING

Afferent/Efferent Pitch Processing
Matt Flax

New Fundamental Frequency Estimators for Cochlear Implants
Adrian Lee, Hugh McDermont, W. Harvey Holmes

Wideband Speech Recovery from Narrowband Speech using a Classified
Codebook Mapping
Yansheng Qian, Peter Kabal

An adaptive noise estimation algorithm for speech enhancement
L. Lin, W. H. Holmes, E. Ambikairajah

Decomposition Of Speech Into Voiced And Unvoiced Components Based On
A Kalman Filterbank
Mark Thomson, Simon Boland, Michael Smithers, Mike Wu, Julien Epps

5.10pm

Session Close

5.30pm

Poster Session

A robust front end for speech processing using auditory masking effects
Eliathamby Ambikairajah

Support Vector Machines for Robust Speaker Verification
Woo-Yong Choi, KyungHee Lee, YongWha Chung

On Reducing Complexity Of Acoustic Models For Mandarin Speech
Recognition
Eric Choi

Multi-Modal Dialogues As Natural User Interface For Automobile Environment
Anurag Gupta, Raymond Lee, Eric Choi

Exploitation Of Feature Vector Structure For Speaker Adaptation
Eric Choi, Trym Holter, Julien Epps, Arun Gopalakrishnan

Systemic Comparison Of Spoken And Sung Vowels In Formant-Frequency
Space
Frantz Clermont

Speech enhancement by formant sharpening in the cepstral domain
David Cole, Sridha Sridharan

A Comparison Of Production Of /S/, /Z/ And /S/ Between Children Using Cochlear Implants And Children Using Hearing Aids
Lois Grant, Catherine Bow, Louise Paatsch, Peter Blamey

Differences In Phonological Encoding Between Children With Dyslexia And Normal Readers
Neville Hennessey, Amanda Truman

Investigating the quantitative factors for sound integration and segregation in human audition -- Harmonicity, frequency distance and common frequency modulation cues –
Hitomi Sato, Jie Huang

Intonation and Prosody of Suggestion in Seoul Korean
Hyunag-Soon Yim

Algorithm For Concatenating Multiple Phonemic Units For Small Size Korean Tts
Cheolwoo Jo, Ilsuh Park

Speaker adaptable voice controlled model-vehicle using energy threshold and MFCC parameters
K. S. Ananthakrishnan, Ryan Andrew

A comparative study of empirical formulae for estimating vowel formant bandwidths
M.Khodai-Joopari, Franz Clermont

Evaluation Of A Vocabulary-Free Speech Data Retrieval System Using Sub-Phonetic Sequence
Shi-Wook Lee, Kazuyo Tanaka, Nahoko Fujimura, Yoshiaki Itoh

Robust Incremental Adaptation Of Gmm In Speaker Recognition
Jae Yeol Rheem, JongJoo Lee, KiYong Lee

Gmm Based On Local Robust Pca For Speaker Identification
YounJeong Lee, JooHun Lee, KiYong Lee

An Acoustic Comparison of Adult and Child Stops
Lynn Lim, Catherine Watson

Individuality of the Voice: An analysis of telephone recorded twin pairs
Deborah Loakes

Cross Language Acoustic Modelling Experiments for Malay and Indonesian
Terrence Martin, Sridha Sridharan

Northern Vietnamese Tones: an acoustic study on female subjects
Duy Duong Nguyen, Pamela Davis

Acoustic and articulatory difference of speech segments at different prosodic positions
Akiko Onaka, Sallyanne Palethorpe, Catherine Watson, Jonathan Harrington

A Study on Standard and Iterative MAP Adaptation for Speaker Recognition
Jason Pelecanos, Robbie Vogt, Sridha Sridharan

Robust Pitch Tracking Using Linear Regression of the Phase
Ramon Prieto, Sora Kim

Synchronising Physiology Data
Ray Robinson

Feature Vector And Frame Weighting To Improve Asr Robustness In The Noisy Conditions
Won-Ho Shin, Min-Seong Kim

Raddoppiamento sintattico and glottalization phenomena in Italian: a first phonetic excursus
Mary Stevens, John Hajek, Matthew Absalom

The effect of removing semantic information upon the impact of voice imitation
Kirk Sullivan, Elisabeth Zetterholm, Jan van Doorn, James Kügler, Erik Eriksson

Overlaps in Talk in Interaction
DatTran

Wednesday 4 December 2002

9.00am Concurrent Session

FORENSIC SPEAKER IDENTIFICATION

Use Of Likelihood Ratio And Bayesian Approach In Forensic Speaker Identification
Yuko Kinoshita

Strength of Forensic Speaker Identification Evidence: Multispeaker Formant and Cepstrum-based Segmental Discrimination with a Bayesian likelihood Ratio as Theshold
Phil Rose, Takashi Osanai, Yuko Kinoshita

Verbal overshadowing in speaker identification: face and voice
Anne Rosen, Dennis Burnham, Caroline Jones

The Application Of A Bayesian Approach To Auditory Analysis In Forensic Speaker Identification
Jennifer Elliot

Parameter Numbers In Forensic Speaker Identification: How Large Should It Be?
Yuko Kinoshita

9.00am **SPOKEN LANGUAGE**

The Effects Of Speech Production And Morphology Training On Speech Perception, Speech Production And Grammatical Judgements.
Catherine Bow, Peter Blamey, Louise Paatsch, Julia Sarant

Phoneme development in profoundly hearing-impaired Cantonese-speaking children using a cochlear implant
Johanna Barry, Peter Blamey, Janet Fletcher

Visual Feedback Of Acoustic Voice Features In Voice Training
C. William Thorpe

Technology for Voice Studies at the National Institute OF Dramatic Art
Daniel Woo, Bill Pepper

Increasing Detail In Analysis Of Speech Breakdown
Beverly Joffe

10.40am
11.10am

Morning Tea
Concurrent Session

ACOUSTIC PHONETICS

Vowel Dispersion In Two Northern Australian Languages
Janet Fletcher, Andrew Butcher

Acoustic analysis and perception of Cantonese vowels produced by
profoundly hearing impaired adolescents
Edward Khouw, Valter Ciocca

Exploring The Importance Of Formant Bandwidths In The Production Of The
Singer's Formant
Tom Millhouse, Frantz Clermont, Pamela Davis

The Impact Of Semantic Expectation On The Acceptance Of A Voice
Imitation
Elisabeth Zetterholm, Kirk Sullivan, Jan van Doorn

Acoustic correlates of voicing in a child s production of plosives"
Fredrik Karlsson, Kirk Sullivan, Jan van Doorn, Peter Czigler

11.10am

SPEAKER RECOGNITION

Filter Bank Feature Extraction for Gaussian Mixture Model Speaker
Recognition
James Nealand, Alan Bradley, Margaret Lech

Detecting Backchannel Intrusions in Multi-Party Teleconferences
Steven Cassidy, Catherine Watson

Speaker-Characterising Properties of Formant Dynamics: A Case Study
Kirsty McDougall

Utilise Vocal Tract Length Normalisation For Robust Automatic Language
Identification
Eddie Wong, Sridha Sridharan

Comparison of Discriminative Approaches to Speaker Recognition
James Nealand, Alan Bradley, Margaret Lech

12.50pm

Lunch
ASSTA AGM

2.15pm

Keynote
Max Coltheart

3.15pm
3.40pm

Afternoon Tea
Concurrent Session

MULTIMODAL SPEECH PERCEPTION

A proposed model of speech perception scores in children with impaired hearing

Louise Paatsch, Peter Blamey, Catherine Bow, Julia Sarant, Lois Martin

Can backwards speech produce Audio-visual facilitation?

JeeSun Kim, Chris Davis

The Role Of Visual Speech Cues In The Auditory Perception Of Synthetic Stimuli By Children Using A Cochlear Implant And Children With Normal Hearing

Veronika M. Surowiecki, David Grayden, Richard Dowell, Graeme Clark, Paul Maruff

Perception Difficulties and Errors in Multimodal Speech: The Case of Vowels

Azra Ali, Michael Ingleby

3.40pm

SPEECH CODING & SPEECH DATABASES

Annotating Speech with Interlinear Text

Steven Bird

The interaction between voice codec quality and delay time in satellite telephony

Robert Mannell

A Voice Activity Detector Employing Noise Suppression

Beena Ahmed, Harvey Holmes

The perception of speech processed with non-overlapping and overlapping filters in a Bark-scaled channel vocoder

Robert Mannell

5.00pm

Session Close

7.00pm

Conference Banquet

Thursday 5 December 2002

9.00am

Concurrent Session

AUTOMATIC SPEECH RECOGNITION 2

Acoustic Modeling Of Onset-Rhyme For Thai Continuous Speech Recognition

Ekkarit Maneenoi, Visarut Ahkuputra

Performance of the ETSI Distributed Speech Recognition algorithm over GSM and IP network

Olav Skundberg, Jamil Khan, Graham Wade

Fuzzy Modeling Techniques for Speech Recognition

Dat Tran, Michael Wagner

Usability evaluation of a commercial dictation system

Penny Collings, David Walker, Michael Wagner

Soft Segment Modeling, A new Approach in duration modeling for speech recognition

Farbod Razzazi, Abolghassem Sayyadian

9.00am

PROSODY & PHONETICS

Turn and turn about: does prosody help the hearer?

Roger Wales, Ilana Mushin, Janet Fletcher, Leslie Stirling

Prosodic boundary effects on /iC/ sequences in French: acoustic results

Marija Tabain, Pascal Perrier, Christophe Savariaux

Prosodic Feature Perception By Human Subjects

Veronika Makarova

Flapping In Three Varieties Of English

Zöe Evans, Catherine Watson

Pre-lateral Vowel Convergence

Fiona Cox

10.40am

Morning Tea

11.10am

Concurrent Session

PSYCHOLINGUISTICS 2

Categorical perception of lexical tone by tonal and non-tonal language speakers

Dennis Burnham, Caroline Jones

Cortical structures, underspecification and mental representation

Carsten Eulitz, Jonas Obleser, Henning Reetz, Aditi Lahiri

The Role Of Orthographic Processing In Phoneme Deletion Tasks

Michael Tyler, Denis Burnham

Error-Detection, Self-Monitoring And Self-Repair In Speech Production

Stefanie Pillai

11.10am

SPEECH SYNTHESIS & DIALOGUE SYSTEMS

Modelling of the segmental and prosodic aspects of speech intensity in synthetic speech

Robert Mannell

Automatic Speech Segmentation with HMM

John Dines, Sridha Sridharan, Miles Moody

Implicit Measurement Of Intelligibility Of Male And Female Voice Text-To-Speech (Tts) Synthesis In Noise Using A Phoneme Detection Task

Nicole Lees, Catherine Stevens, Julie Vonwiller

Automatic Dialog Act Labeling with Minimal Supervision

Anand Ventakaram

12.30pm

Lunch

1.50pm

Keynote

Richard Cox

Multimedia Textbooks and Beyond: Speech Processing for People with Disabilities

2.50pm

Afternoon Tea

3.00pm Concurrent Session

FEATURE ANALYSIS

Analysis of Parameter Bounds for Mono Audio Signal Stream Separation
using Combined PCA/ICA Techniques
Tania Barrett, Ian Burnett, Jason Lukasaik

Car Speech Enhancement Using Microphone Array Beamforming And Post
Filters
Jen-Tzung Chien, Po-Yin Lai

Detection of onset and offset of voicing and silence using statistical measures
Jamie Granek, Michael Orr, Brian Lithgow

3.00pm **SPEECH PHYSIOLOGY**

Development and application of a pressure sensing electropalatograph
*A. H. Rohde, G. L. Pienaar, M. Veidt, P. A. Jacobs, B. E. Murdoch, J. V.
Goozee, D. Scott*

Oral Diadochokinetic Rate Of Normal Thai Children
*Benjamas Prathanee, Sanguansak Thanaviratananit, Amornrat
Pomjanyakul*

Assimilation of place of articulation: evidence from English and Japanese
Lisa Stephenson, Jonathon Harrington

4.00pm Conference Close