

EUROSPEECH '93

PROCEEDINGS

UB/TIB Hannover 89
113 210 000



VOLUME 2

- 21.23 Time-Varying Manner on Formant Trajectories of Chinese Diphthong
– J. Cao, Chinese Academy of Social Sciences, Beijing, China 735

Coffee Break: 11.00 - 11.20 hrs

PROCEEDINGS VOLUME 2

Session 22: Speech Coding IV

Time and Place: 11.20 - 12.40 hrs Room A

Chairperson: H. Leung, MIT, USA

- 22.1 High-Quality Speech Coding at 2.4 Kbps Based on Time-Frequency Interpolation
– Y. Shoham, AT&T Bell Laboratories, USA 741
- 22.2 Coding of Speech Signal by Fractal Techniques
– L. Marcato, E. Mumolo, Università' di Trieste, Italy 745
- 22.3 A New Reference Signal for Evaluating the Quality of Speech Coded at Low Bit-Rates
– N. Asanuma, H. Nagabuchi, NTT Human Interface Lab, Telecommunication
Networks Laboratories, Japan 749
- 22.4 A Psychophysical Study of Fourier Phase and Amplitude Coding of Speech
– C. Ma, D. O'Shaughnessy, INRS-Telecommunications, Canada 753

Session 23: Phonetics II

Time and Place: 11.20 - 13.00 hrs Room B

Chairperson: L. Nord, KTH Stockholm, Sweden

- 23.1 Data-Driven Identification of Poly- and Mono-Phonemes for Four European Languages
– O. Andersen(*), P. Dalsgaard(*), W. Barry(**), (*) University of Aalborg, Denmark,
(**) Universität des Saarlandes, Germany 759
- 23.2 Reversible Letter-to-Sound Sound to-Letter Generation Based on Parsing
Word Morphology
– S. Hunnicutt, H. Meng, S. Seneff, V.W. Zue, MIT, USA 763
- 23.3 The Role of Context in the Automatic Recognition of Stressed Syllables
– J. Moore, P. Roach, University of Leeds, UK 767
- 23.4 Metrical Structure and the Perception of Time-Compressed Speech
– D. Young(*), G.T.M. Altmann(*), A. Cutler(**), D. Norris(**), (*) Sussex University,
(**) MRC Applied Psychology Unit, Cambridge, UK 771
- 23.5 Are Stress and Phonemic String Processed Separately? Evidence from Speech Illusions
– V. Pasdeloup, J. Morais, R. Kolinsky, Université Libre de Bruxelles, Belgium 775

Session 24: Prosody II: Analysis and Modelling of F₀ Contours

Time and Place: 11.20 - 13.00 hrs Room C

Chairperson: L. Boves, University of Nijmegen, The Netherlands

- 24.1 On the Automatic Classification of Pitch Movements
– L. ten Bosch, Institute for Perception Research, The Netherlands 781

- 24.2 Modelling of Intonation Contours at the Sentence Level Using CHMMs and the 1961 O'Connor and Arnold Scheme
– U. Jensen(*), R. K. Moore(**), P. Dalsgaard(*), B. Lindberg(*),
(*) Aalborg University, Denmark, (**) Defence Research Agency Malvern, UK 785
- 24.3 Automatic Recognition of Intonation from F₀ Contours Using the Rise/Fall/Connection Model
– P. Taylor, ATR Interpreting Telecomm. Labs, Kyoto, Japan 789
- 24.4 A Pitch Contour Analysis Guided by Prosodic Event Detection;
– E. Geoffrois, NTT Human Interface Lab., Telecomm. Networks Lab., Tokyo, Japan 793
- 24.5 Analysis and Synthesis of Pitch Movements in a Read Polish Text
– G. Demenko, I. Nowak, J. Imiolczyk, Polish Academy of Sciences, Poland 797

Session 25: Improved Algorithms for HMMs II

Time and Place: 11.20 - 13.00 hrs Room D

Chairperson: A. Noll, aspect, Hamburg, Germany

- 25.1 Optimization of an HMM-Based Continuous Speech Recognizer
– F. Class, A. Kaltenmeier, P. Regel-Brietzmann, Daimler-Benz AG, Ulm, Germany 803
- 25.2 Linear and Nonlinear Prediction for Speech Recognition with Hidden Markov Models
– M. Saerens(*), H. Bourlard(**), (*) Université Libre de Bruxelles,
(**) Lernout & Hauspie Speech Products, Belgium 807
- 25.3 Segmental Post-Processing of the N-Best Solutions in a Speech Recognition System
– M.N. Lokbani, D. Jouviet, J. Monné, France Télécom, CNET/LAA/TSS/RCP, France 811
- 25.4 A Study of On-Line Bayesian Adaptation for HMM-Based Speech Recognition
– T. Matsuoka, C.-H. Lee, AT&T Bell Laboratories, USA 815
- 25.5 Hidden Markov Models Using Shared Vector Linear Predictors
– B.A. Maxwell, P.C. Woodland, Cambridge University, UK 819

Session 26: Speech Recognition in Noise

Time and Place: 11.20 - 13.00 hrs Room E

Chairperson: G. Chollet, TELECOM Paris, France

- 26.1 Noise Adaptation: Speech Recognition by Auditory Models and Human Listeners
– W.A. Ainsworth, G.F. Meyer, Keele University, UK 825
- 26.2 Adapting an HMM-Based Recogniser for Noisy Speech Enhanced by Spectral Subtraction
– J.A. Nolasco Flores, S.J. Young, Cambridge University, UK 829
- 26.3 Speech Recognition Under the Unstationary Noise Based on the Noise Markov Model and Spectral-Subtraction
– T. Kobayashi, R. Mine, K. Shirai, Waseda University, Japan 833
- 26.4 HMM Recognition in Noise Using Parallel Model Combination
– M.J.F. Gales, S.J. Young, University of Cambridge, UK 837
- 26.5 Selectively Trained Neural Networks for Connected Word Recognition in Noisy Environments
– L. Buniêt(*), D. Fohr(*), Y. Anglade(*), J-C. Junqua(**), J-M. Pierrel(*),
(*) CRIN-CNRS & INRIA, France, (**) Panasonic, USA 841

Session 27: Speaker Independency**Time and Place:** 11.20 - 12.40 hrs Room F*Chairperson: E. Paulus, Technical University of Braunschweig, Germany*

- 27.1 A Baseline of a Speaker Independent Continuous Speech Recognizer of Italian
– B. Angelini, F. Brugnara D. Falavigna, D. Giuliani, R. Gretter, M. Omologo,
Istituto per la Ricerca Scientifica e Tecnologica, Italy 847
- 27.2 Word Lookahead Scheme for Cross-Word Right Context Models in a Stack Decoder
– L.R. Bahl, P.V. de Souza, P.S. Gopalakrishnan, D. Nahamoo, M. Picheny, IBM,
T.J. Watson Research Center, USA 851
- 27.3 Recognition of Obstruent Phonemes in Speaker-Independent Fluent Speech Using a
Hierarchical Approach
– D.B. Grayden, M.S. Scordilis, The University of Melbourne, Australia 855
- 27.4 A Continuous Speech Recognition System Using Phonotactic Constraints
– B. Plannerer, G. Ruske, TU München, Germany 859

Session 28: Speech Synthesis**Poster Session 4****Time and Place:** 11.20 - 13.00 hrs Room G*Chairperson: J. Sotscheck, TELEKOM Berlin, Germany*

- 28.1 Joint Arabic-Hebrew Speech Synthesis System
– M. Ouadou(*), A. Rajouani(*), M. Zyoute (*), J. Rosenfeld(**), M. Najim(***),
(* LEESA, Maroc, (***) Université de Bordeaux, (***) ENSERB, France 865
- 28.2 Improvements of the Spanish Version of the Multivox Text-to-Speech System
– E.L. López-Gonzalo(*), G. Olaszy(**), G. Németh(***), (*) Universidad Politécnica
de Madrid, Spain, (***) Hungarian Academy of Science, (***) Technical University of
Budapest, Hungary 869
- 28.3 Generating Intonation for Swedish Text-to-Speech Conversion Using a Quantitative
Model for the F₀ Contour
– M. Ljungqvist(*), H. Fujisaki(**), (*) Infovox AB, Sweden, (***) Science University
of Tokyo, Japan 873
- 28.4 PHRITTS - A Text-to-Speech Synthesizer for the German Language
– P. Meyer(*), H.W. Rühl(*), R. Krüger(*), M. Kugler(*), L.L.M. Vogten(**),
A. Dirksen (**), K. Belhoula(***), (*) PHILIPS Kommunikations Industrie AG,
Germany, (***) Institute for Perception Research, Eindhoven, The Netherlands,
(***) Ruhr-Universität Bochum, Germany 877
- 28.5 Rule-Based Grapheme-to-Phoneme Conversion of Names
– K. Belhoula, Ruhr-Universität Bochum, Germany 881
- 28.6 A Prototype Text-to-Speech System for Scottish Gaelic
– I.R. Murray, M.M. Black, University of Dundee, UK 885
- 28.7 A Text-to-Speech System for Polish
– J. Imiolczyk, I. Nowak, G. Demenko, Polish Academy of Science, Poland 889
- 28.8 Intelligibility as a Function of Speech Coding Method for Template-Based Speech
Synthesis
– M. Macchi, M.J. Altom, D. Kahn, S. Singhal, M. Spiegel, Bellcore, USA 893
- 28.9 Pronunciation and Text Normalisation in Applied Text-to-Speech Systems
– M. Gaved, British Telecom Res. Labs., Ipswich, UK 897

28.10	Evaluating Synthesised Prosody in Simulations of an Automated Telephone Enquiry Service – J. House(*), C. MacDermid(**), S. McGlashan(**), A. Simpson(**), N. Youd(***), (*) UCL, (**) University of Surrey, (***) Logica Cambridge, UK	901
28.11	Speech Synthesis in Dialogue Systems – K. Morton, M. Tatham, University of Essex, UK	905
28.12	Applying Analysis of Human Emotional Speech to Enhance Synthetic Speech – E. Abadjieva, I.R. Murray, J.L. Arnott, University of Dundee, UK	909
28.13	A Generic Front-End for Text-to-Speech Synthesis Systems – E. Lewis(*), M. Tatham(**), (*) Bristol University, (**) Essex University, UK	913
28.14	Experiments with Silent-E and Affix Correspondences in Stochastic Phonographic Transduction – R.W.P. Luk, R.I. Damper, University of Southampton, UK	917
28.15	Phoneme-Dependent Speech Synthesis in the Time and Frequency Domains – G. Fries, DBP Telekom, Germany	921
28.16	Speech Synthesis Experiments with the Glove Synthesiser – I. Karlsson, L. Neovius, KTH Stockholm, Sweden	925
28.17	Auditory Detection of Discontinuities in Synthesis-by-Concatenation – V. Kraft, Ruhr-Universität Bochum, Germany	929
28.18	Effects of the Phase Jitters on Naturalness of Synthesized Speech – Y.-K. Lee, S.-K. Ahn, Central Research Laboratory Glodstar Co. Ltd., Korea	933
28.19	Letter-to-Sound Rules for the Welsh Language – B. Williams, CSTR, Edinburgh, UK	937

Break for lunch: 13.00 - 14.00 hrs

Session 29: Dialogue Structure I

Time and Place: 14.00 - 15.40 hrs Room A

Chairperson: S. McGlashan, University of Surrey, UK

29.1	Dialogue Design Principles - Key for Usability of Voice Processing – C. Müller, F. Runge, Telekom, Forschungs- u. Technologiezentrum, Berlin, Germany	943
29.2	Wizard-of-Oz and the Trade-Off between Naturalness and Recogniser Constraints – H. Dybkjær, N.O. Bernsen, L. Dybkjær, Roskilde University, Denmark	947
29.3	Dialogue Analysis and Generation: A Theory for Modelling Natural English Dialogue – C. Jones, R. Garigliano, University of Durham, UK	951
29.4	Features of Naive Callers' Dialogues with a Simulated Speech Understanding and Dialogue System – C. MacDermid, University of Surrey, UK	955
29.5	Referring to Actions in Man-Machine Command Dialogues – F. Duermael, B. Gaiffe, CRIN-CNRS, France	959

Session 30: Language Modelling I

Time and Place: 14.00 - 15.40 hrs Room B

Chairperson: R. Billi, CSELT Torino, Italy

30.1	Issues in Large Scale Statistical Language Modelling – R. Zhao, P. Kenny, P. Labute, D. O'Shaughnessy, INRS-Telecommunications, Canada	965
------	---	-----

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.