

Computational Phonology
Third Meeting of the ACL Special Interest
Group in Computational Phonology

Proceedings of a Workshop
Sponsored by the
Association for Computational Linguistics

Edited by
John Coleman

12 July 1997
Universidad Nacional de Educación a Distancia
Madrid, Spain

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PREFACE

I am delighted to bring this volume to you, the third set of SIGPHON proceedings. It contains the papers prepared for the Third Meeting of the ACL Special Interest Group in Computational Phonology, held on 12th July, 1997, at the Universidad Nacional de Educacion a Distancia, Madrid, Spain. As this meeting is taking place in conjunction with the 8th Conference of the European Chapter of the ACL, papers on work relating to languages of Europe were specifically welcomed. Work on Dutch dialects, British English, and Czech is reported here, as well as several other languages presenting interesting challenges to computational phonological modelling.

The purpose of SIGPHON is to provide a forum for the interchange of research results, and this third meeting establishes the workshops as the principal mechanism for achieving that aim. In particular, its goals are to maintain computational phonology firmly on the research agenda in computational linguistics, to nurture links between researchers in computational phonology, and to facilitate the dissemination of research results and software. SIGPHON provides an FTP server and World-Wide Web site for papers, implementations, back-issues of the newsletter, and a membership directory which lists the research interests of more than 100 people working in the field. The URL of the FTP server is:

`ftp://ftp.cogsci.ed.ac.uk/pub/phonology`

and the SIGPHON home page may be found at

`http://www.cogsci.ed.ac.uk/phonology/CompPhon.html`

All who work in computational phonology, or who have interests that touch on it, are welcome to browse our home page and, if they wish, to add their name and interests in the directory.

This third meeting of SIGPHON, like the first, has no special theme. The papers show a broad range of research activity, though they fall naturally into four groups: dialect distance metrics (Raman *et al.*, Nerbonne and Heeringa), prediction of vowel systems from first principles (de Boer; Carré and Mody), lexical studies of specific languages (Bird, Skoumalova), and grammatical formalisms for computational phonology (Coleman and Pierrehumbert, Kiraz).

As program chair I wish to thank my fellow program committee members for the efforts in reviewing the submitted papers within a very tight time-schedule at a time when they were all pressed by many other duties: Bob Berwick (MIT), Andras Kornai (BBN), and Steven Bird (University of Edinburgh). I am particularly grateful to Steven for advice on the practical arrangements of the workshop, at a time when he was approaching the end of a long period of field work in Cameroon. I am also grateful to two anonymous reviewers, who gave external reviews of two papers submitted by members of the program committee. Finally, I wish to thank Richard Sproat for providing me with various pieces of useful information learned from organising the previous workshop.

John Coleman, University of Oxford
Chair, Program Committee

WORKSHOP PROGRAM

- 8:30 **Registration**
- 9:00 **Opening Remarks and Announcements**
- 9:15 **Scientific Papers**
A Complexity Measure for Diachronic Chinese Phonology
Anand Raman, John Newman and Jon Patrick
- Measuring Dialect Distance Phonetically*
John Nerbonne and Wilbert Heeringa
- Self Organisation in Vowel Systems through Imitation*
Bart de Boer
- 10:45 **Coffee**
- 11:15 **Scientific Paper**
Prediction of Vowel and Consonant Place of Articulation
René Carré and Maria Mody
- 11:45 **SIGPHON meeting**
(Open to all)
- 12:15 **Lunch**
- 2:00 **Scientific Papers**
A Lexical Database Tool for Quantitative Phonological Research
Steven Bird
- A Czech Morphological Lexicon*
Hana Skoumalová
- Stochastic Phonological Grammars and Acceptability*
John Coleman and Janet Pierrehumbert
- 3:30 **Coffee**
- 4:00 **Scientific Paper**
Linearization of Nonlinear Lexical Representations
George Anton Kiraz
- 4:30 **A different event**
- 5:30 **Concluding remarks**

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