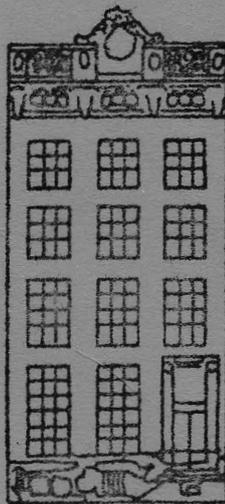


**PROCEEDINGS**

**12**



**INSTITUTE OF PHONETIC SCIENCES  
UNIVERSITY OF AMSTERDAM**

**1988**

# PROCEEDINGS

FROM THE INSTITUTE OF PHONETIC SCIENCES  
OF THE UNIVERSITY OF AMSTERDAM

12

AMSTERDAM 1988

ISSN : 0167-5613

© Copyright reserved 1988  
Published by the Institute of Phonetic Sciences  
University of Amsterdam  
Herengracht 338  
1016 CG Amsterdam

# CONTENTS

	page
<b>RUSSIAN INTONATION BY DUTCH STUDENTS*</b> C.M.H.A. Deckers	1
<b>A JOINT DUTCH RESEARCH PROGRAM FOR DEVELOPING A HIGH-QUALITY TEXT-TO-SPEECH SYNTHESIS SYSTEM*</b> L.C.W. Pols	9
<b>IMPROVING SYNTHETIC SPEECH QUALITY BY SYSTEMATIC EVALUATION*</b> L.C.W. Pols	19
<b>THE DEVELOPMENT OF SPEECH COMMUNICATION IN NORMAL AND CLEFT-PALATE BABIES: STATE OF THE ART OF A PROJECT**</b> F.J. Koopmans-van Beinum, J.M. van der Stelt, and K. Jansonius-Schultheiss	29
<b>SENSITIVE STAGES IN FACE-TO-FACE INTERACTION IN THE FIRST TWO YEARS OF LIFE**</b> J.M. van der Stelt	41
<b>THE FIRST STEP TO A BETTER UNDERSTANDING OF VOWEL REDUCTION*</b> D.R. van Bergem	61
<b>LIST OF PUBLICATIONS IN 1987 AND 1988</b>	i-vi

---

\* represents the research field entitled "PERCEPTUAL AND PHYSICAL DESCRIPTION OF VARIATION AND INVARIANCE IN SPEECH".

\*\* represents the research field entitled "SPEECH COMMUNICATION: DEVELOPMENT AND PATHOLOGY".

## LIST OF PERSONNEL

### Scientific Staff

Prof. dr. ir. L.C.W. Pols	director of the Institute
Ir. P. van Alphen	on AIO <sup>1</sup> contract
Drs. D.R. van Bergem*	on AIO <sup>1</sup> contract
Dr. R.A.M.G. van Bezooijen*	on SPIN <sup>2</sup> contract
Ir. D.G. Broeder	on SPIN <sup>2</sup> contract
Drs. L.W. M. Damen	on NWO <sup>3</sup> contract until 1/8/88
Drs. J.S.C. van Dijk	
Drs. L.W.A. van Herpt	
Ir. B. Horst	temporarily until 19/11/88
Drs. K. Jansonius-Schultheiss*	on Praeventiefonds <sup>4</sup> contract
E.O. Kappner	until 1/10/88
Dr. F.J. Koopmans-van Beinum*	
Drs. C.T.L. Kuijpers	on AIO <sup>1</sup> contract
Drs. G.L. Meinsma	
Drs. N.J.D.M.M. van Son	on ESPRIT <sup>5</sup> contract
Drs. R.J.J.H. van Son	on SPIN <sup>2</sup> contract
Drs. J.M. van der Stelt*	partly on Praeventiefonds <sup>4</sup> contract
Drs. M.T.J. Tielen*	on AIO <sup>1</sup> contract
Drs. D.J.M. Weenink*	on Faculty labour-contract

### Technical and Administrative Staff

M. Blom*	on Praeventiefonds <sup>4</sup> contract until 1/11/88
J. Bossema	
A. Dijkstra*	on Praeventiefonds <sup>4</sup> contract until 1/11/88
F.W. Eelzak	
D.T. Jaasma	
A.W. van Maanen	
A.G. Wempe*	

---

\* Part-time

1 Faculty position as post-graduate student

2 Dutch Speech Program for Promoting Information Technology Research

3 Netherlands Organization for Scientific Research

4 Netherlands Prevention Fund

5 European Strategic Program for Research and Development of Information Technology

## INTRODUCTION

This Proceedings 12 of the Institute of Phonetic Sciences of the University of Amsterdam contains contributions concerning our current research projects. The papers represent two main research fields:

- PERCEPTUAL AND PHYSICAL DESCRIPTION OF VARIATION AND INVARIANCE IN SPEECH (indicated by \* in the Content).
- SPEECH COMMUNICATION: DEVELOPMENT AND PATHOLOGY (indicated by \*\* in the Content).

For your information a list of personnel is included, as well as a list of our publications in 1987 and 1988.

Moreover, our "Institute's Profile" with up-to-date information about our institute and our research activities is available upon request.

All correspondence, including requests to be put on our mailing list, may be sent to:

Institute of Phonetic Sciences  
University of Amsterdam  
Herengracht 338  
1016 CG Amsterdam  
The Netherlands  
tel.: + 31 20 5252183  
fax: + 31 20 5252197

November, 1988.

Editor: F.J. Koopmans-van Beinum  
Technical realization: J. Bossema  
F.W. Eelzak  
D.T. Jaasma