

# EUROSPEECH 2003

8th European Conference on Speech Communication and Technology



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## **Message from the ISCA President**

On behalf of the International Speech Communication Association (ISCA), I would like to welcome you to the beautiful city of Geneva and to the 8<sup>th</sup> European Conference on Speech Communication and Technology – EUROSPEECH 2003 (INTERSPEECH 2003).

As you are well aware, the EUROSPEECH series of conferences has established itself as one of the major international conferences on speech communication science and technology. From the first gathering in Paris in 1989, each subsequent conference – Genova '91, Berlin '93, Madrid '95, Rhodes '97, Budapest '99 and Aalborg '01 – has kept its own style as well as adding new ideas to the overall format. Since the previous EUROSPEECH we have adopted full-paper submission to conduct strict review of each paper. This year, more than 1,000 papers have been submitted and approximately 70% of them have been selected for presentation after the peer review process. In addition, many special sessions have been organized based on proposals by ISCA SIGs (Special Interest Groups) and other voluntary groups.

ISCA was founded 15 years ago as ESCA (European Speech Communication Association). Since its inception, the Association has been steadily expanding and consolidating its activities; it has offered an increasing range of services and benefits to its members and has placed its financial and administrative functions on a firm professional footing. ESCA has evolved from a small EEC-supported European organization to a fully independent and self-supporting international association. In 1999, ESCA changed its name to ISCA (International Speech Communication Association) and modified its statutes accordingly. The main goal of the Association is “to promote Speech Communication Science and Technology, both in the industrial and academic areas”, covering all aspects of Speech Communication (acoustics, phonetics, phonology, linguistics, natural language processing, artificial intelligence, cognitive science, signal processing, pattern recognition, etc.).

In 2002, ISCA Board and PC-ICSLP (Permanent Council of International Conferences on Spoken Language Processing) agreed to merge Eurospeech and ICSLP under the name “INTERSPEECH events”. We can expect many benefits from the two organizations coming together and an official agreement will be established soon in an equitable way. ICSLP 2002 was already held under the umbrella of ISCA, and various software tools created for Eurospeech 2001 were reused for ICSLP 2002. Our previous experiences with running EUROSPEECH and ICSLP will be pooled and passed along to future INTERSPEECH events. The INTERSPEECH events that have already been scheduled are ICSLP 2004 in Jeju, Korea, and Eurospeech 2005 in Lisbon, Portugal. If you have any imaginative ideas that you feel could shape future conferences in Speech Communication and Technology, please contact the ISCA Board and let us know.

Finally, returning to EUROSPEECH – 2003 (INTERSPEECH 2003) – Geneva, on your behalf I would like to offer a formal vote of thanks to the Switzerland team responsible for seeing this project through to completion. As you can imagine, planning and organizing a major international event such as this is no small undertaking. Many people have dedicated huge quantities of their personal time and effort towards creating the event we are now enjoying. We should offer a huge thank you to the EUROSPEECH – 2003 General Chairman Hervé Bourlard and his wonderful team of local organizers for their tireless efforts in creating another significant milestone in the annals of international speech science and technology. Also, we should extend our thanks to all those members of the international community who provided input to the reviewing process, to the organizers of the special sessions, and to the people who have mounted satellite workshops in support of the main conference. Last, but by no means least, I would like to thank all of you for supporting and attending this conference.

I wish you all a successful conference, an enjoyable time in Geneva and a memorable visit to this lovely part of Switzerland. I look forward to seeing you again at the next ISCA event.

Prof. Dr. Sadaoki Furui

ISCA President

## A Welcome Message from the General Chair

On behalf of the Organizing Committee, it is with great pleasure and enthusiasm that I welcome you to the 8<sup>th</sup> European Conference on Speech Communication and Technology 2003 (EUROSPEECH 2003 --- INTERSPEECH 2003), in Geneva, Switzerland. EUROSPEECH 2003 was organised by scientists and educators from IDIAP (Dalle Molle Institute for Perceptual Artificial Intelligence, Martigny), in close collaboration with the University of Geneva, the Swiss Federal Institute of Technology in Lausanne (EPFL), and the Swiss Federal Institute of Technology in Zürich (ETHZ).

EUROSPEECH 2003 is the eighth biennial conference of the International Speech Communication Association (ISCA) and the fourth in the annual series of INTERSPEECH events. Previous EUROSPEECH conferences took place in Paris (1989), Genoa (1991), Berlin (1993), Madrid (1995), Rhodes (1997), Budapest (1999) and Aalborg (2001). EUROSPEECH 2003 also follows on from the previous INTERSPEECH Event - the International Conference on Spoken Language Processing (ICSLP) held in Denver in 2002 - and precedes ICSLP-2004, to be held in Korea, and EUROSPEECH 2005, which will be held in Lisbon.

As the largest interdisciplinary conference on speech processing and language technology, EUROSPEECH 2003 is being held in the truly international city of Geneva, Switzerland, at the International Congress Center of Geneva (CICG). As you will experience, the Center is well equipped with conference rooms, large spaces for poster sessions, as well as plenty of smaller sized rooms for small group meetings.

We are very pleased to see the great interest in this year's EUROSPEECH. We have received an exceptionally large number of contributions, amounting to a total of 1081 papers submitted (not including special session papers). This represents a 20% increase, compared to the previous EUROSPEECH (in 2001), and is evidence of the exceptional quality of the conference. The International Program Committee thus had an extremely difficult task in selecting papers, with the help of 286 international reviewers, who's devoted effort we thankfully acknowledge. All papers were thoroughly reviewed by at least two reviewers. Finally, of the papers submitted, 743 were accepted as part of regular sessions, and 338 were rejected (i.e. 68.7 % acceptance rate). The accepted papers will be presented during 27 oral sessions and 33 poster sessions (with an average of 15 posters at each). We have taken several steps to ensure participants are provided with the maximum number of opportunities to interact, and share their expertise.

EUROSPEECH 2003 is also offering a few extra events, including a full-day Tutorial program (which will take place on August 31) and 12 special sessions. The **Tutorial Day** program will feature six in-depth tutorials (selected from several proposals), from world-class experts in their field, and will provide valuable up-to-date overviews of a wide range of topics, covering: *State-of-the-art in language modeling* (by Joshua Goodman, Microsoft Research); *Introduction to VoiceXML—The markup Language for web-based voice applications* (by Jim Larson, Intel Corporation); *Adaptive Learning: Technology and challenges for ASR and SLU* (by Giuseppe Riccardi et al., AT&T Research Labs); *Markup languages Voice XML and SALT* (by Jin Liu and Felix Burkhardt, T-Systems); *Conversational and multimodal user interaction* (by David Nahamoo and T.V. Raman, IBM Research); and *Tools for annotating natural interactivity corpora* (by Niels Ole Bernsen et al., Univ. of Southern Denmark).

Eleven **Special Sessions** (selected from several proposals), and covering different topics of special interest, as well as the popular "Educational Arena", have also been selected and will run in parallel with the regular conference sessions. A number of satellite workshops have also been planned, and are listed in the following pages. Finally, **Keynote Talks** will also be presented by Kenneth Church (AT&T Labs-Research) on "Speech and language processing: where have we been and where are we going?" and Birger Kollmeier (Universität Oldenburg) on "Auditory Principles in speech processing – do computers need silicon ears?".

The Organizing Committee has made every effort to make this an enjoyable and memorable meeting. However, given the current economic challenge, EUROSPEECH 2003 faced serious difficulties regarding sponsoring and industrial exhibitors. Thus, we offer a very special thank you to our sponsors: the Office of Naval Research International Field Office, the State of Valais, Multimodal Information Management (IM)<sup>2</sup>, Logitech, Union Banque Suisse (UBS), the Swiss National Science Foundation, and the State of Geneva. The generous support of these sponsors has made it possible to keep the registration fees (approximately) at the same cost as previous EUROSPEECHs (through partial sponsoring of the Conference Center), while including in all registrations the Welcome Reception on Monday, and the "gala dinner banquet" on Wednesday. A student reception will also be offered after the ISCA General Assembly on Tuesday evening.

The city of Geneva is set in one of the most enchanting countrysides, beside one of Europe's largest lakes and is surrounded by majestic mountains. Geneva is also the ideal gateway for discovering the beautiful scenery of the surrounding lake and mountain region, including the famous Mont-Blanc. While in Switzerland, we hope you will visit different parts of the country, including the famous "Swiss Valais" (hosting IDIAP). We hope you will have the opportunity to enjoy the international and multi-cultural atmosphere of Geneva, while also experiencing the majestic beauty and cozy atmosphere of the typical Swiss towns and villages.

Finally, in my own name, I wish here to acknowledge the organizational assistance of all the members of the Organizing Committee, as well as Symporg, our official Conference Organizers. Without them, nothing would have been possible!

I trust you will take advantage of the opportunities EUROSPEECH 2003 provides for scientific collaboration, discussion, and enjoyable social interactions, making EUROSPEECH 2003 a worthwhile and memorable event. Finally, I welcome you once again to Geneva and EUROSPEECH 2003.

Prof. Hervé Bourlard  
Chair of EUROSPEECH-2003

## Organising Committee

### General Chair

Hervé Bourlard, IDIAP/EPFL  
Phone: +41 27 721 77 11  
E-mail: [bourlard@idiap.ch](mailto:bourlard@idiap.ch)

### Vice-Chair

Margaret King, ETI/ISSCO,  
University of Geneva  
Phone: +41 22 705 87 55  
E-mail: [margaret.king@issco.unige.ch](mailto:margaret.king@issco.unige.ch)

### Assistant to Committee

Joanne Moore-Schulz, IDIAP  
Phone: +41 27 721 77 49  
E-mail: [schulz@idiap.ch](mailto:schulz@idiap.ch)

### Scientific Secretary

Martin Rajman, EPFL  
Phone: +41 21 693 52 77  
E-mail: [martin.rajman@epfl.ch](mailto:martin.rajman@epfl.ch)

Beat Pfister, ETHZ  
Phone: +41 1 632 51 37  
E-mail: [beat.pfister@ethz.ch](mailto:beat.pfister@ethz.ch)

### Technical Program

Andrzej Drygajlo, EPFL  
Phone: +41 21 693 43 28  
E-mail: [andrzej.drygajlo@epfl.ch](mailto:andrzej.drygajlo@epfl.ch)

### Publications (proceedings) & Web Master

Jean-Cédric Chappelier, EPFL  
Phone: +41 21 693 66 83  
E-mail: [jean-cedric.chappelier@epfl.ch](mailto:jean-cedric.chappelier@epfl.ch)

### Web Master

Sandra Manzi, ISSCO,  
University of Geneva  
Phone: +41 22 705 86 80  
E-mail: [sandra.manzi@issco.unige.ch](mailto:sandra.manzi@issco.unige.ch)

### Public and Institutional relations

Bernard Levrat, University of Geneva  
Phone: +41 22 705 75 35  
E-mail: [bernard.levrat@cui.unige.ch](mailto:bernard.levrat@cui.unige.ch)

### Sponsorship and Industrial Contacts

Murat Kunt, EPFL  
Phone: +41 21 623 26 26  
E-mail: [murat.kunt@epfl.ch](mailto:murat.kunt@epfl.ch)

Jean-Pierre Rausis, Bersy Consulting  
Phone: +41 27 395 53 33  
E-mail: [jprausis@netplus.ch](mailto:jprausis@netplus.ch)

**Eurospeech 2003 was organised by the following institutions:**

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**The University of Geneva**, [www.unige.ch](http://www.unige.ch)

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7, Ave Krieg  
CH - 1208 Geneva, Switzerland  
Phone : +41 22 839 84 84  
Fax : +41 22 839 84 85  
E-mail: [organisers@eurospeech2003.org](mailto:organisers@eurospeech2003.org)

## International Program committee

The Organising Committee acknowledges the invaluable contributions made by members of the International Scientific Committee.

Frédéric Bimbot	IRISA, France
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## Tutorials

Tutorials for Eurospeech 2003 will be held on Sunday August 31, 2003. These tutorials are organized by expert speakers and professionals who are highly recognized in their field. The idea behind the tutorials is to bring to light the recent developments in fields concerning Speech Processing and Language Technology to all students, engineers and scientists.

### Morning Sessions (9.00 to 12.30):

#### **“The State of the Art in Language Modeling”**

*Organizer:* Joshua Goodman (Microsoft Research).

<http://research.microsoft.com/~joshuago/eurospeechannounce.htm>

#### **“Introduction to VoiceXML – The Markup Language for Web-based Voice Applications”**

*Organizer:* Jim Larson (Intel Corporation).

<http://www.larson-tech.com/speech.htm>

#### **“Adaptive Learning: Technology and Challenges for Automatic Speech Recognition and Spoken Language Understanding”**

*Organizer:* Giuseppe Riccardi, Dilek Hakkani-Tur and Gokhan Tur (AT&T Research Labs).

<http://www.research.att.com/~dsp3/tutorial/index.htm>

### Afternoon Sessions (14.00 p.m. to 17.30)

#### **“Markup Languages VoiceXML and SALT (Speech Application Language Tags)”**

*Organizer:* Felix Burkhardt, Christel Mueller and Jin Liu (T-Systems).

<http://141.39.77.62/index.html>

#### **“Conversational and Multimodal User Interaction”**

*Organizer:* David Nahamoo and T. V. Raman (IBM Research).

<http://www.almaden.ibm.com/cs/people/tvraman/eurospeech-2003/>

#### **“Tools for Annotating Natural Interactivity Corpora”**

*Organizer:* Niels Ole Bernsen, Mykola Kolodnytsky and Laila Dybkjær (Natural Interactive Systems Lab, University of Southern Denmark)

<http://nite.nis.sdu.dk/eurospeech/>

## Satellite Events

EUROSPEECH 2003 is proudly associated with the following satellite events.

### **Spoken Language Processing for e-Inclusion**

Dalsgaard Paul, Russell Martin, Granström Bjorn, Hickey Marianne

<http://kom.auc.dk/e-inclusion/satellite-workshop.htm>

### **Voice Quality: Functions, Analysis and Synthesis**

Geneva, Switzerland, August 27-29, 2003

<http://www.limsi.fr/VOQUAL/>

### **Error Handling in Spoken Dialogue Systems**

Chateau-d'Oex-Vaud, Switzerland, August 28-31, 2003

<http://www.speech.kth.se/error/>

### **DiSS '03 - Disfluency in Spontaneous Speech**

Gothenburg University, Sweden, September 5-8, 2003

<http://www.ling.gu.se/konferenser/diss03/>

### **AVSP'2003 (audio-visual speech processing)**

<http://www.icp.inpg.fr/AVSP03/>

# ICSLP 2004 -- INTERSPEECH

## 2004 International Conference on Spoken Language Processing

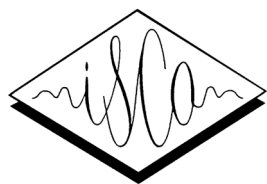
October 4 - 8, 2004 - ICC Jeju, Jeju Island, Korea

### CALL FOR PAPERS

<p><b>General Chair</b> <i>Soon Hyob Kim</i> Kwangwoon Univ. <a href="mailto:kimsh@daisy.kwangwoon.ac.kr">kimsh@daisy.kwangwoon.ac.kr</a></p> <p><b>Vice-Chairs</b> <i>Sang-Oak Lee</i> Seoul National Univ. <a href="mailto:sangoak@snu.ac.kr">sangoak@snu.ac.kr</a> <i>Yung-Hwan Oh</i> KAIST <a href="mailto:yhoh@cs.kaist.ac.kr">yhoh@cs.kaist.ac.kr</a> <i>Yanghee Lee</i> Dongduk Univ. <a href="mailto:yhlee@dongduk.ac.kr">yhlee@dongduk.ac.kr</a></p> <p><b>Technical Program</b> <i>Dae Hee Youn</i> Yonsei Univ. <a href="mailto:dhyoun@yonsei.ac.kr">dhyoun@yonsei.ac.kr</a></p> <p><b>Tutorials</b> <i>Chang Dong Yoo</i> KAIST <a href="mailto:cdyoo@ee.kaist.ac.kr">cdyoo@ee.kaist.ac.kr</a></p> <p><b>Finance</b> <i>Sangwon Kang</i> Hanyang Univ. <a href="mailto:swkang@hanyang.ac.kr">swkang@hanyang.ac.kr</a></p> <p><b>Publicity</b> <i>Minhwa Chung</i> Sogang Univ. <a href="mailto:mchung@ccs.sogang.ac.kr">mchung@ccs.sogang.ac.kr</a></p> <p><b>Publication</b> <i>Myungjin Bae</i> Soongsil Univ. <a href="mailto:mjbae@saint.soongsil.ac.kr">mjbae@saint.soongsil.ac.kr</a></p> <p><b>Registration</b> <i>Hanseok Ko</i> Korea Univ. <a href="mailto:hsko@korea.ac.kr">hsko@korea.ac.kr</a></p> <p><b>Exhibit</b> <i>Youngjik Lee</i> ETRI <a href="mailto:ylee@etri.re.kr">ylee@etri.re.kr</a></p> <p><b>Local Arrangement</b> <i>Hyun-Yeol Chung</i> Yeungnam Univ. <a href="mailto:hychung@ynucc.yeungnam.ac.kr">hychung@ynucc.yeungnam.ac.kr</a></p> <p><b>Special Event</b> <i>Ho-Young Lee</i> Seoul National Univ. <a href="mailto:hylee@snu.ac.kr">hylee@snu.ac.kr</a></p> <p><b>General Affairs</b> <i>Uncheon Lim</i> Hoseo Univ. <a href="mailto:uclim@dogsuri.hoseo.ac.kr">uclim@dogsuri.hoseo.ac.kr</a></p>	<p>ICSLP 2004 is the eighth biennial conference following the interdisciplinary tradition established by the first conference in Kobe and continued through previous conferences which were held in Denver USA, Beijing China, Sydney Australia, Philadelphia USA, Yokohama Japan, Banff Canada. The theme of the ICSLP 2004 is "The Role of Spoken Language for Global Communication in the New Millennium." With the participation of researchers, scientists, engineers, academics, and industrial developers, the ICSLP 2004 will further the ICSLP's strong tradition of interdisciplinary study in speech science and language technology.</p> <p>The conference will be held at the new International Convention Center Jeju (ICC Jeju) on Jeju Island. Jeju is the largest and most developed island in Korea; yet, with its clean air, sparkling water, and exotic island culture, Jeju Island is rapidly becoming a favored holiday destination for world travelers.</p> <p>All sessions at the Conference will be organized and conducted in a style that will be familiar to those who participated in previous ICSLP conferences, with parallel oral and poster sessions. Topics of interest for submissions include but are not limited to:</p> <table border="0"><tr><td><b>Phonology</b></td><td><b>Signal Analysis</b></td></tr><tr><td><b>Phonetics and Psycholinguistics</b></td><td><b>Speech Coding and Transmission</b></td></tr><tr><td><b>Discourse and Dialogue</b></td><td><b>Speaker Recognition</b></td></tr><tr><td><b>Prosody</b></td><td><b>Speech Recognition</b></td></tr><tr><td><b>Speech Modeling &amp; Features</b></td><td><b>- Robustness, Adaptation, Search, Large Vocabulary</b></td></tr><tr><td><b>Speech Production &amp; Physiology</b></td><td><b>Spoken Language Understanding</b></td></tr><tr><td><b>Linguistic Modeling of Spoken Language</b></td><td><b>Language and Accent Identification</b></td></tr><tr><td><b>Speech Perception and Comprehension</b></td><td><b>Multi-Lingual Spoken Language Processing</b></td></tr><tr><td><b>Speech Pathology Processing</b></td><td><b>Multi-Modal Spoken Language Processing</b></td></tr><tr><td><b>Speech Enhancement</b></td><td><b>Information Extraction and Retrieval</b></td></tr><tr><td><b>Speech Signal Processing</b></td><td><b>Education</b></td></tr><tr><td><b>Spoken Dialogue Systems</b></td><td><b>Speech Resources and Standards</b></td></tr><tr><td><b>Speech Generation and Synthesis</b></td><td><b>Speech Technology Applications</b></td></tr><tr><td><b>Adaptation and Acquisition</b></td><td><b>Others</b></td></tr></table> <p><b>PAPER SUBMISSION</b></p> <p>Prospective authors are invited to submit full papers of not more than four(4) pages. Papers will be accepted only by electronic submission through the conference web site. Prospective authors without web access should contact one of the Technical Program Chairs well before the submission deadline.</p> <table border="0"><tr><td>Four-page, full paper submission due:</td><td>April 15, 2004</td></tr><tr><td>Notification of paper acceptance:</td><td>June 14, 2004</td></tr><tr><td>ICSLP 2004 Tutorials Day:</td><td>Oct. 4, 2004</td></tr><tr><td>ICSLP 2004:</td><td>Oct. 5-8, 2004</td></tr></table> <p><b>PROPOSALS FOR TUTORIALS AND SPECIAL SESSIONS</b></p> <p>Tutorials will be held on Sunday, October 4, 2004. Proposals for tutorials must include a title, an outline of the tutorial and its motivation, contact information for the presenter(s), and a short description of the material to be covered. Proposals for tutorials should be submitted to Chang Dong Yoo (cdyoo@ee.kaist.co.kr) before December 15, 2003.</p> <p>ICSLP2004 – INTESPEECH will include a number of special sessions. Proposals for special sessions must include a title, contact information for the session chair(s), and a list of authors who have been or will be contacted to present papers if the session is accepted. Proposals for special sessions should be submitted to Dae Hee Youn (<a href="mailto:dhyoun@yonsei.ac.kr">dhyoun@yonsei.ac.kr</a>) before December 15, 2003.</p> <p><b>FOR FURTHER INFORMATION:</b> <a href="http://www.icslp2004.org">http://www.icslp2004.org</a></p>	<b>Phonology</b>	<b>Signal Analysis</b>	<b>Phonetics and Psycholinguistics</b>	<b>Speech Coding and Transmission</b>	<b>Discourse and Dialogue</b>	<b>Speaker Recognition</b>	<b>Prosody</b>	<b>Speech Recognition</b>	<b>Speech Modeling &amp; Features</b>	<b>- Robustness, Adaptation, Search, Large Vocabulary</b>	<b>Speech Production &amp; Physiology</b>	<b>Spoken Language Understanding</b>	<b>Linguistic Modeling of Spoken Language</b>	<b>Language and Accent Identification</b>	<b>Speech Perception and Comprehension</b>	<b>Multi-Lingual Spoken Language Processing</b>	<b>Speech Pathology Processing</b>	<b>Multi-Modal Spoken Language Processing</b>	<b>Speech Enhancement</b>	<b>Information Extraction and Retrieval</b>	<b>Speech Signal Processing</b>	<b>Education</b>	<b>Spoken Dialogue Systems</b>	<b>Speech Resources and Standards</b>	<b>Speech Generation and Synthesis</b>	<b>Speech Technology Applications</b>	<b>Adaptation and Acquisition</b>	<b>Others</b>	Four-page, full paper submission due:	April 15, 2004	Notification of paper acceptance:	June 14, 2004	ICSLP 2004 Tutorials Day:	Oct. 4, 2004	ICSLP 2004:	Oct. 5-8, 2004
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International Conference on Speech Communication and Technology

INTERSPEECH'2005



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September 4-8, 2005, Lisbon, Portugal



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L2F - Spoken Language Systems Laboratory

INESC ID Lisboa

R. Alves Redol, 9

1000-029 Lisbon, Portugal

Web: <http://www.l2f.inesc-id.pt>

Phone: +351 213100268

Fax: +351 213145843

**Paper submission**

Contributions to Interspeech 2005 will be requested as full paper submissions (max. 4 pages). All submissions will be handled via the www. The deadline for paper submission is April 1st 2005.

**Information**

If you want to be updated as more information becomes available, please send e-mail to the following address: [info@interspeech2005.org](mailto:info@interspeech2005.org)