

Athanasios Katsamanis

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Summary

Dr. Athanasios (Nassos) Katsamanis received the Diploma in electrical and computer engineering (with highest honors) and the Ph.D. degree from the National Technical University of Athens in Greece, in 2003 and 2009 respectively. After that, he worked for almost 3 years as a Postdoctoral Research Associate at the School of Electrical Engineering in the University of Southern California, as member of the Signal Analysis and Interpretation Laboratory. He is currently a Research Associate at the School of Electrical Engineering in the National Technical University of Athens and at the Information Analysis and Modeling Unit of the Athena Research and Innovation Center.

His research interests lie in the fields of language, speech analysis and multimodal signal processing and understanding aiming at the interpretation and modeling of human behavior. He is currently working on distant speech recognition, multimodal gesture recognition and audiovisual speech synthesis in the frame of the EU research projects DIRHA, MOBOT and the Greek project Cognimuse. He has published more than 50 papers in international peer-reviewed journals and conferences in the areas of human behavior analysis, affective computing, speech production modeling, speech recognition, acoustic event detection, sign language recognition and multimodal fusion. He is a member of the IEEE, the Acoustical Society of America and the National Technical Chamber of Greece.

Education

PhD in Electrical and Computer Engineering 2003-2009
National Technical University of Athens, School of E.C.E Athens, Greece

Subject: Non-linear computational speech modeling exploiting aerodynamics in the vocal tract

Advisor: Prof. Petros Maragos (URL: <http://cvsp.cs.ntua.gr/maragos>)

Diploma/M.Eng. in Electrical and Computer Engineering 1998 - 2003
National Technical University of Athens, School of E.C.E Athens, Greece

Final Grade: 9.49/10 (highest honors)

Diploma Thesis: Statistical Multiband Demodulation and Speech Analysis Using Kalman Filters and Energy Related Methods (Advisor: Prof. Petros Maragos)

Research Experience

Research Associate 2013-today
National Technical University of Athens Athens, Greece

I have been working on the following national research project:

Cognimuse(Multimodal Signal and Event Processing in Perception and Cognition)
Research on audiovisual speech synthesis and auditory saliency.

Research Associate 2013-2014
Athena-RC, Information Analysis and Modeling Unit Athens, Greece

As a member of the Unit, I worked on the following project:

DIRHA (Distant-speech Interaction for Robust Home Automation): Research on keyword spotting and distant speech recognition.

Postdoctoral Research Associate

2009-2012

University of Southern California, School of Electrical Engineering *Los Angeles, California, USA*

As a member of the Signal Analysis and Interpretation Laboratory I participated in the following projects:

Museum of Science: NSF-funded project on the development of interactive virtual guides at the museum of science in Boston.

Speech production and analysis: NIH-funded project on speech production modeling using real-time Magnetic Resonance Imaging of the vocal tract.

CreativeIT: NSF-funded project to study and develop computational models of human improvisation.

RATS: DARPA-funded project on Robust Automatic Transcription of Speech.

DCAPS: DARPA-funded project on Detection and Computational Analysis of Psychological Signals.

Graduate Research Assistant

2004-2009

*National Technical University of Athens, School of E.C.E.**Athens, Greece*

As a member of the Computer Vision, Speech Communication & Signal Processing (CVSP)

Group, I participated in European and national research projects:

ΠΕΝΕΔ: Research on computational speech production modeling based on aeroacoustics.

ASPI (Audiovisual to Articulatory Speech Inversion): Research on statistical audiovisual to articulatory speech inversion exploiting multimodal articulatory data.

MUSCLE (Multimedia Understanding via Semantics, Computation & Learning): Research on multimodal fusion for audiovisual speech recognition and event detection in audio streams.

HIWIRE (Human Input that Works in Real Environments): Research on speaker normalization and adaptation for user-robust continuous speech recognition.

Protagoras: Research on speech demodulation and formant tracking.

Visiting Researcher

summer 2007

*École Nationale Supérieure des Télécommunications**Paris, France*

Project: Improved acoustic modeling for speech inversion.

Mentor: Prof. Shinji Maeda.

Research Assistant

July 2000-May 2002

*Institute for Language and Speech Processing**Athens, Greece*

Designed and implemented an educational environment in MATLAB for the “Signals and Systems” course taught at the E.C.E. School at NTUA (Mentor: Prof. G. Carayiannis.)

Worked on a web interface for text-to-speech synthesis (Mentor: Dr. Ath. Protopapas)

Participated in the design and preparatory group for the European research project **METIS** on machine translation based on monolingual corpora. (Mentor: Dr. G. Tampouratzis)

Research Assistant

summer 2002

*Hong Kong Polytechnic University, School of Computer Science**Hong Kong, China*

In the frame of the student exchange program IAESTE I worked under the supervision of Assoc.

Prof. Robert Luk on the design and implementation of an automatic Cantonese speech

recognizer using the Hidden Markov Model Toolkit (HTK). Worked on duration modeling and on general system optimization.

Awards-Scholarships**PhD Studies Scholarship**

2005-2009

Onassis Public Benefit Foundation

PhD Studies Scholarship <i>Greek National Scholarship Foundation</i>	2006-2008
Research Assistantship Scholarship <i>Institute for Language and Speech Processing</i>	2000-2002
Papakyriakopoulou and Kritikou Awards for excellent performance in Mathematics <i>National Technical University of Athens</i>	2000
Award for excellent performance at the E.C.E. School <i>Technical Chamber of Greece</i>	2000
Undergraduate Studies Scholarship <i>Greek National Scholarship Foundation</i>	1998-1999

Teaching Experience

Guest Lecturer <i>University of Southern California, School of E.E.</i>	2010, 2011 <i>Los Angeles, U.S.A.</i>
Gave three invited lectures for the following graduate-level classes:	
EE 519 Speech Recognition and Processing for Multimedia (Fall Semester, 2010),	
Lecture on Short-Time Fourier Transform	
Lecture on Speech Enhancement	
EE 619 Advanced Subjects in Speech Recognition (Spring Semester, 2011),	
Lecture on Noise-Robust Speech Recognition	
Graduate Teaching Assistant <i>National Technical University of Athens, School of E.C.E</i>	2004-2008 <i>Athens, Greece</i>
Served as a lab and teaching assistant (lab preparation, presentation and grading) for the following courses, instructed by Prof. Petros Maragos:	
Pattern Recognition with Emphasis on Speech Recognition (9th Semester, 2004-2006),	
Signals and Systems (4th Semester, 2007),	
Digital Signal Processing (6th Semester, 2008).	

Academic Activities

Reviewer

IEEE Transactions on Audio, Speech and Language Processing
 IEEE Signal Processing Letters
 Journal of the Acoustical Society of America
 IEEE Transactions on Affective Computing
 Speech Communication
 Journal of Engineering in Medicine
 Interspeech
 International Conference on Acoustics, Speech and Signal Processing (ICASSP)

Invited Talks/ Posters/ Seminars

- [1] **Distant speech recognition**
at the 1st ISCA summer school, Heraclion, Crete, 2014.
- [2] **Prosodic characterization of reading styles using audiobook corpora**
at the 161st Meeting of the Acoustical Society of America, San Diego, 2011.
- [3] **Multipulse articulatory modeling in the Wisconsin X-ray microbeam speech production database**
at the meeting of the Acoustical Society of America in Seattle, May 2011.
- [4] **Tongue Tracking in Ultrasound Images with Active Appearance Models**
at Ultrafest, New Haven, 2010.
- [5] **Audiovisual Speech: Recognition and Inversion**
at GIPSA-lab in Grenoble, France, Apr. 2009.
- [6] **Audio-Visual Speech Analysis and Recognition**
in MUSCLE joint with VITALAS Conference, Cannes, France, Feb. 2008.
- [7] **Fricative synthesis investigations using the transmission line matrix method**
at the meeting of the Acoustical Society of America in Paris, July 2008.
- [8] **Towards Automatic Speech Recognition in Adverse Environments**
in the Nonlinear Speech Processing Workshop (WNSP05), Heraklion, Greece, 2005.
- [9] **Statistical Speech Analysis and Nonlinear Modeling**
in COST277 Seminar in Limerick, 2004.
- [10] **Speech Technologies for E-Commerce and Transactional Services**
in EFTEHNOS series of seminars on supportive information and telecommunication technologies for people with special needs, University of Athens, 2004.

Open-Source Research Software

SailAlign

http://cvsp.cs.ntua.gr/~nassos/sail_align.html

Long Speech-Text Alignment Software

First release: January 2011

SailAlign is an open-source software toolkit for robust long speech-text alignment implementing an adaptive, iterative speech recognition and text alignment scheme that allows for the processing of very long (and possibly noisy) audio and is robust to transcription errors. It is mainly written as a perl library and it depends upon freely available software and libraries where necessary, namely HTK, srilm, the Edinburgh Speech Tools Library and sclite.

Professional Experience in Industry

KEPYES, Hellenic Army

<http://www.army.gr>

Software Engineer

June 2012-February 2013

In the frame of my compulsory military service for the army, I designed, developed and tested a school information system for the management of the school of nursing officers of the hellenic army.

Qualia S.A.

<http://www.qualia.gr>

Software Engineer

June 2006-June 2007

Worked on the design and development of a broadcast news automatic speech recognition system integrated in a multimedia information retrieval platform.

Voice-In S.A.

<http://www.voice-in.gr>

Developer

October 2002-July 2003

Designed and implemented an Interactive Voice Responce (IVR) application optionally integrating automatic speech recognition and speech synthesis technologies.

Professional Memberships

Institute of Electrical and Electronics Engineers <i>Signal Processing Society</i>	2003-present
Acoustical Society of America <i>Member of the Speech Technical Committee</i>	2010-present
Technical Chamber of Greece	2004-present

Software Development, System & Network Administration Experience

Programming Languages C/C++, Perl, Python, Ruby, MATLAB, Java

Operating Systems Linux, Mac, Windows

Contributed in the design, development and administration of the CVSP group website and the CVSP network and computer system infrastructure (<http://cvsp.cs.ntua.gr/>).

Languages

- **English:** Proficient level (Cambridge Proficiency, CEFR level C2)
- **German:** Intermediate level (Mittelstufe, CEFR level B2)
- **French:** Basic level (CEFR level A2)
- **Greek:** Native

References

References available upon request

List of Publications

Peer-Reviewed Journal Papers

- [1] V. Pitsikalis, A. Katsamanis, S. Theodorakis, and P. Maragos, **Multimodal gesture recognition via multiple hypotheses rescoring**, Journal of Machine Learning Research, 2014 (to appear).
- [2] A. Metallinou, A. Katsamanis, and S. Narayanan, **Tracking continuous emotional trends of participants during affective dyadic interactions using body language and speech information**, Image and Vision Computing (IMAVIS), Special Issue on Affect Analysis in Continuous Input, vol. 3(1): 137-152, Feb. 2013.

- [3] C.-C. Lee, A. Katsamanis, M. Black, B. Baucom, A. Christensen, P. Georgiou, and S. Narayanan,
Computing Vocal Entrainment: A Signal-derived PCA-based Quantification with Application to Affect Recognition in Married Couples' Interactions,
Computer Speech and Language, 2013.
- [4] M. Black, A. Katsamanis, B. R. Baucom, C.-C. Lee, A. C. Lammert, A. Christensen, P. G. Georgiou, and S. Narayanan
Toward Automating a Human Behavioral Coding System for Married Couples Interactions using Acoustic Features,
Speech Communication, vol. 55(1): 1-21, 2013.
- [5] A. Metallinou, M. Wöllmer, A. Katsamanis, F. Eyben, B. Schuller, and S. Narayanan,
Context-Sensitive Learning for Enhanced Audiovisual Emotion Classification,
IEEE Trans. on Affective Computing, vol. 3(2): 184-198, 2012.
- [6] A. Katsamanis, G. Papandreou, and P. Maragos,
Face Active Appearance Modeling and Speech Acoustic Information to Recover Articulation,
IEEE Trans. on Audio, Speech and Language Processing, vol. 17(3): 411-422, Mar. 2009.
- [7] G. Papandreou, A. Katsamanis, V. Pitsikalis, and P. Maragos,
Adaptive Multimodal Fusion by Uncertainty Compensation with Application to Audio-Visual Speech Recognition,
IEEE Trans. on Audio, Speech and Language Processing, vol. 17(3): 423-435, Mar. 2009.

Papers in International Peer-Reviewed Conferences

- [1] P. Koutras, A. Zlatintsi, E. Iosif, A. Katsamanis, P. Maragos and A. Potamianos,
Predicting Audio-Visual Salient Events Based on Visual, Audio and Text Modalities for Movie Summarization,
Accepted for publication in IEEE Int'l. Conf. on Image Processing (ICIP), Quebec, Canada, 2015.
- [2] P. Giannoulis, A. Brutti, M. Matassoni, A. Abad, A. Katsamanis, M. Matos, G. Potamianos, P. Maragos,
Multi-room speech activity detection using a distributed microphone network in domestic environments,
Accepted for publication in Proc. European Signal Processing Conf. (EUSIPCO), 2014.
- [3] G. Pavlakos, S. Theodorakis, V. Pitsikalis, A. Katsamanis, P. Maragos,
Kinect-Based Multimodal Gesture Recognition Using a Two-Pass Fusion Scheme,
Proc. Int'l Conf. Image Processing (ICIP), 2014.
- [4] P. Giannoulis, A. Katsamanis, G. Potamianos, P. Maragos,
Multi-Microphone Fusion for Detection of Speech and Acoustic Events in Smart Spaces,
Proc. European Signal Processing Conf. (EUSIPCO), 2014.
- [5] A. Tsiami, A. Katsamanis, G. Potamianos, P. Maragos,
Experiments in Acoustic Source Localization Using Sparse Arrays in Adverse Indoors Environments,
Proc. European Signal Processing Conf. (EUSIPCO), 2014.
- [6] M. Matassoni, R. F. Astudillo, A. Katsamanis, M. Ravanelli,
The DIRHA-GRID corpus: baseline and tools for multi-room distant speech recognition using distributed microphones,
Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2014.

- [7] A. Tsiami, I. Rodomagoulakis, P. Giannoulis, A. Katsamanis, G. Potamianos, P. Maragos, **ATHENA: A Greek Multi-Sensory Database for Home Automation Control**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2014.
- [8] A. Katsamanis, I. Rodomagoulakis, G. Potamianos, P. Maragos, A. Tsiami, **Robust Far-Field Spoken Command Recognition for Home Automation Combining Adaptation and Multichannel Processing**, Proc. IEEE Int'l Conf. Acous., Speech, and Signal Processing (ICASSP), 2014.
- [9] P. Giannoulis, A. Tsiami, I. Rodomagoulakis, A. Katsamanis, G. Potamianos, P. Maragos, **Multi-Microphone Fusion for Detection of Speech and Acoustic Events in Smart Spaces**, Proc. 4th Joint Workshop on Hands-free Speech Communication and Microphone Arrays (HSCMA), 2014.
- [10] A. Tsiartas, T. Chaspari, A. Katsamanis, P. Ghosh, M. Li, M. Van Segbroeck, A. Potamianos, and S. Narayanan, **Multi-band long-term signal variability features for robust voice activity detection**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2013.
- [11] C.C. Lee, A. Katsamanis, B. Baucom, P. Georgiou, and S. Narayanan, **Using Measures of Vocal Entrainment to Inform Outcome-Related Behaviors in Marital Conflicts**, Proc. of the Asia-Pacific Signal and Information Processing Association Conference (APSIPA), 2012.
- [12] D. Traum, P. Aggarwal, R. Artstein, S. Foutz, J. Gerten, A. Katsamanis, D. Noren, W. Swartout, **Ada and Grace: Direct Interaction with Museum Visitors**, Proc. of Intelligent Virtual Agents Conference (IVA), 2012.
- [13] P. Aggarwal, R. Artstein, J. Gerten, A. Katsamanis, S. Narayanan, A. Nazarian, D. Traum, **The Twins corpus of museum visitor questions**, Proc. of the Language Resources and Evaluation Conference (LREC), 2012.
- [14] C.C. Lee, A. Katsamanis, P. Georgiou, and S. Narayanan, **Based on Isolated Saliency or Causal Integration? Toward a Better Understanding of Human Annotation Process using Multiple Instance Learning and Sequential Probability Ratio Test**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2012.
- [15] A. Metallinou, A. Katsamanis and S. Narayanan, **A hierarchical framework for modeling multimodality and emotional evolution in affective dialogs**, Proc. IEEE Int'l Conf. Acous., Speech, and Signal Processing (ICASSP), 2012.
- [16] M. Wöllmer, A. Metallinou, A. Katsamanis, B. Schuller and S. Narayanan, **Analyzing the memory of BLSTM neural networks for enhanced emotion classification in dyadic spoken interactions**, Proc. IEEE Int'l Conf. Acous., Speech, and Signal Processing (ICASSP), 2012.
- [17] T. Chaspari, E. Mower Provost, A. Katsamanis, S. Narayaan, **An acoustic analysis of shared enjoyment in ECA interactions of children with autism**, Proc. IEEE Int'l Conf. Acous., Speech, and Signal Processing (ICASSP), 2012.
- [18] A. Katsamanis, J. Gibson, M. Black, and S. Narayanan, **Multiple instance learning for classification of human behavior observations**, Proc. of International Conference on Affective Computing and Intelligent Interactions (ACII), 2011.

- [19] C.-C. Lee, A. Katsamanis, Black M., P. Georgiou, and S. Narayanan, **Affective state recognition in married couples' interactions using PCA-based vocal entrainment measures with multiple instance learning**, Proc. of International Conference on Affective Computing and Intelligent Interactions (ACII), 2011.
- [20] M. Black, P. Georgiou, A. Katsamanis, B. Baucom, and S. Narayanan, **"You made me do it": Classification of blame in married couples' interaction by fusing automatically derived speech and language information**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2011.
- [21] J. Gibson, A. Katsamanis, M. Black, and S. Narayanan, **Automatic identification of salient acoustic instances in couples' behavioral interactions using diverse density support vector machines**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2011.
- [22] A. Katsamanis, E. Bresch, V. Ramanarayanan, and S. Narayanan, **Validating rt-MRI based articulatory representations via articulatory recognition**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2011.
- [23] A. Lammert, M. Proctor, A. Katsamanis, and S. Narayanan, **Morphological variation in the adult vocal tract: A modeling study of its potential acoustic impact**, Proc. Int'l Conf. on Speech Communication and Technology, 2011.
- [24] C.-C. Lee, A. Katsamanis, M. Black, B. Baucom, P. Georgiou, and S. Narayanan, **An analysis of pca-based vocal entrainment measures in married couples' affective spoken interactions**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2011.
- [25] S. Narayanan, E. Bresch, P. Ghosh, L. Goldstein, A. Katsamanis, Y. Kim, A. Lammert, M. Proctor, V. Ramanarayanan, and Y. Zhu, **A multimodal real-time mri articulatory corpus for speech research**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2011.
- [26] M. Proctor, A. Lammert, A. Katsamanis, L. Goldstein, C. Hagedorn, and S. Narayanan, **Direct estimation of articulatory kinematics from real-time magnetic resonance image sequences**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2011.
- [27] V. Ramanarayanan, A. Katsamanis, and S. Narayanan, **Automatic data-driven learning of articulatory primitives from real-time MRI data using convolutive NMF with sparseness constraints**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2011.
- [28] B. Xiao, V. Rozgic, A. Katsamanis, B. Baucom, P. Georgiou, and S. Narayanan, **Acoustic and visual cues of turn-taking dynamics in dyadic interactions**, Proc. Int'l Conf. on Speech Communication and Technology (Interspeech), 2011.
- [29] A. Metallinou, A. Katsamanis, Y. Wang and S. S. Narayanan, **Tracking Changes in Continuous Emotion States using Body Language and Prosodic Cues**, Proc. IEEE Int'l Conf. Acous., Speech, and Signal Processing (ICASSP), 2011.
- [30] V. Rozgic, B. Xiao, A. Katsamanis, B. Baucom, P. G. Georgiou and S. S. Narayanan, **Estimation of ordinal approach-avoidance labels in dyadic interaction: ordinal logistic regression approach**, Proc. IEEE Int'l Conf. Acous., Speech, and Signal Processing (ICASSP), 2011.
- [31] A. Katsamanis, M. P. Black, P. G. Georgiou, L. Goldstein and S. S. Narayanan,

- SailAlign: Robust long speech-text alignment**,
Proc. of Workshop on New Tools and Methods for Very-Large Scale Phonetics Research, 2011.
- [32] M. Black, A. Katsamanis, C.-C. Lee, A. Lammert, B. Baucom, A. Christensen, P. G. Georgiou and S. S. Narayanan,
Automatic Classification of Married Couples' Behavior using Audio Features,
Proc. Int'l Conf. on Spoken Language Processing (Interspeech), Sep. 27-30, Tokyo, Japan, 2010.
- [33] E. Bresch, A. Katsamanis, L. Goldstein and S. S. Narayanan,
Statistical multi-stream modeling of real-time MRI articulatory speech data,
Proc. Int'l Conf. on Spoken Language Processing (Interspeech), Sep. 27-30, Tokyo, Japan, 2010.
- [34] V. Rozgic, B. Xiao, A. Katsamanis, B. Baucom, P. G. Georgiou and Shrikanth S. Narayanan,
A new multichannel multimodal dyadic interaction database,
Proc. Int'l Conf. on Spoken Language Processing (Interspeech), Sep. 27-30, Tokyo, Japan, 2010.
- [35] C.-C. Lee, M. Black, A. Katsamanis, A. Lammert, B. Baucom, A. Christensen, P. G. Georgiou and S. S. Narayanan,
Quantification of Prosodic Entrainment in Affective Spontaneous Spoken Interactions of Married Couples,
Proc. Int'l Conf. on Spoken Language Processing (Interspeech), Sep. 27-30, Tokyo, Japan, 2010.
- [36] M. I. Proctor, D. Bone, A. Katsamanis and S. S. Narayanan,
Rapid Semi-automatic Segmentation of Real-time Magnetic Resonance Images for Parametric Vocal Tract Analysis,
Proc. Int'l Conf. on Spoken Language Processing (Interspeech), Sep. 27-30, Tokyo, Japan, 2010.
- [37] A. Roussos, A. Katsamanis, P. Maragos, **Tongue Tracking in Ultrasound Images with Active Appearance Models**,
Proc. IEEE Int'l Conf. on Image Processing (ICIP), Cairo, Egypt, Nov. 7-11, 2009.
- [38] S. Theodorakis, A. Katsamanis, P. Maragos,
Product-HMMs for automatic sign language recognition,
Proc. IEEE Int'l Conf. on Acoustics, Speech, and Signal Processing (ICASSP), Taipei, Taiwan, Apr. 2009.
- [39] A. Katsamanis, T. Roussos, P. Maragos, M. Aron and M.-O. Berger,
Inversion from Audiovisual Speech to Articulatory Information by Exploiting Multimodal Data,
Proc. Int'l Seminar on Speech Production (ISSP), Strasbourg, France, Dec. 2008.
- [40] A. Katsamanis, G. Ananthakrishnan, G. Papandreou, P. Maragos, O. Engwall
Audiovisual Speech Inversion by Switching Dynamical Modeling Governed by a Hidden Markov Process,
Proc. European Signal Processing Conf. (EUSIPCO), Lausanne, Switzerland, Aug. 2008.
- [41] A. Katsamanis, G. Papandreou, and P. Maragos,
Audiovisual-to-Articulatory Speech Inversion Using Active Appearance Models for the Face and Hidden Markov Models for the Dynamics,
Proc. IEEE Int'l Conf. on Acoustics, Speech, and Signal Processing (ICASSP), Las Vegas, NV, U.S.A., Mar.-Apr. 2008.
- [42] S. Lefkimmiatis, P. Maragos, A. Katsamanis,
Multisensor Multiband Cross-Energy Tracking for Feature Extraction and Recognition,

- Proc. IEEE Int'l Conference on Acoustics, Speech, and Signal Processing (ICASSP), Las Vegas, NV, U.S.A., Mar.-Apr. 2008.
- [43] G. Papandreou, A. Katsamanis, V. Pitsikalis, and P. Maragos,
Multimodal Fusion and Learning with Uncertain Features Applied to Audiovisual Speech Recognition,
Proc. IEEE Workshop on Multimedia Signal Processing (MMSp), pp. 264-267, Chania, Greece, Oct. 1-3, 2007.
- [44] A. Katsamanis, G. Papandreou, and P. Maragos,
Audiovisual-to-Articulatory Inversion Using Hidden Markov Models,
Proc. IEEE Workshop on Multimedia Signal Processing (MMSp), pp. 457-460, Chania, Greece, Oct. 1-3, 2007.
- [45] A. Katsamanis, P. Tsiakoulis, P. Maragos, A. Potamianos,
Investigations in Articulatory Synthesis,
Proc. Int'l Congress of Phonetic Sciences (ICPhS), Saarbruecken, Germany, Aug. 2007.
- [46] V. Pitsikalis, A. Katsamanis, G. Papandreou, and P. Maragos,
Adaptive Multimodal Fusion by Uncertainty Compensation,
Proc. Int'l Conf. on Spoken Language Processing (ICSLP), Sep. 17-21, Pittsburgh PA, USA, 2006.
- [47] A. Katsamanis, G. Papandreou, V. Pitsikalis, and P. Maragos,
Multimodal Fusion by Adaptive Compensation for Feature Uncertainty with Application to Audiovisual Speech Recognition,
Proc. 14th European Signal Processing Conf. (EUSIPCO), Florence, Italy, Sept. 4-8 2006.
- [48] A. Katsamanis and P. Maragos,
Advances in Statistical Estimation and Tracking of AM-FM Speech Components,
Proc. 9th European Conf. on Speech Communication and Technology (Eurospeech), Lisbon, Portugal, Sept. 2005.

Book Chapters

- [1] G. Papandreou, A. Katsamanis, V. Pitsikalis and P. Maragos,
Adaptive Multimodal Fusion by Uncertainty Compensation with Application to Audio-Visual Speech Recognition,
in Multimodal Processing and Interaction: Audio, Video, Text, edited by P. Maragos, A. Potamianos, and P. Gros, Springer-Verlag, New York, 2008.
- [2] P. Maragos, P. Gros, A. Katsamanis and G. Papandreou,
Cross-Modal Integration for Performance Improving in Multimedia: A Review,
in Multimodal Processing and Interaction: Audio, Video, Text, edited by P. Maragos, A. Potamianos, and P. Gros, Springer-Verlag, New York, 2008.