

JULIA HIRSCHBERG

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Biographical Sketch

Julia Hirschberg has been a professor in the Department of Computer Science at Columbia University since 2002. She received her PhD in Computer Science from the University of Pennsylvania. She worked at Bell Laboratories and AT&T Laboratories – Research from 1985-2003 as a Member of Technical Staff, Department Head, and Technology Leader, creating the Human-Computer Interface Research Department at Bell Labs. She has done research on prosody, discourse structure, conversational implicature, text-to-speech synthesis, speech search, spoken dialogue systems, emotional speech, deceptive speech, and speech summarization. She served as editor-in-chief of Computational Linguistics from 1993-2003 and was an editor-in-chief of Speech Communication from 2003-2006 and is now on the Editorial Board. She was on the Executive Board of the Association for Computational Linguistics (ACL) from 1993-2003, has been on the Permanent Council of International Conference on Spoken Language Processing (ICSLP) since 1996, and served on the board of the International Speech Communication Association (ISCA) from 1999-2007 (as President 2005-2007). She is on the board of the CRA-W and has been active in working for diversity at AT&T and at Columbia. She has been a fellow of the American Association for Artificial Intelligence since 1994 and an ISCA Fellow since 2008. She has received an honorary doctorate from KTH Stockholm and is the 2011 recipient of the James L. Flanagan Speech and Audio Processing Award from IEEE and of the ISCA Medal for Scientific Achievement. She received a Columbia Engineering School Alumni Association (CESAA) Distinguished Faculty Teaching Award in 2009. She won best paper awards from Eurasip (2005) for best paper published in Speech Communication for 2003-2004 and the AVIOS award for best paper appearing in the Journal of AVIOS in 1994. She has received IBM Faculty Awards in 2005 and 2006 and has also received funding from the National Science Foundation, the Department of Homeland Security, DARPA, KDD, Lockheed Martin, and the Simons Foundation. She holds 5 patents for text-to-speech synthesis and audio browsing/retrieval.

Research Interests

Computational Linguistics/Natural-Language Processing: Empirical and Corpus-based Studies of Intonation and Discourse, Emotion in Speech, Spoken Dialogue Systems, Audio Browsing and Retrieval, Speech Understanding, Text-to-Speech Systems, Labeling Standards for Speech Corpora, Human-Computer Interaction.

Employment

2002– Columbia University, Professor of Computer Science.

2000–03 AT&T Labs – Research, Florham Park. Technology Leader, Human-Computer Interface Research Department.

1996–00 AT&T Labs – Research, Florham Park. Division Manager, Human-Computer Interface Research Department.

1994–96 AT&T Bell Laboratories, Murray Hill. Division Manager, Human-Computer Interface Research Department.

1985–94 AT&T Bell Laboratories, Murray Hill. Member of Technical Staff, Linguistics Research Department.

1974–82 Smith College. Assistant Professor of History, 1977-82; Instructor in History, 1974-77.

Education

1985 PhD, Computer and Information Science, University of Pennsylvania. Thesis: “A Theory of Scalar Implicature”. Thesis Advisor: Bonnie Webber.

1982 MSEE, Computer and Information Science, University of Pennsylvania. Thesis: “Representing the Codasyl Data Model in the Type Systems of High Level Languages”. Thesis Advisor: Peter Buneman.

1976 PhD, History, University of Michigan at Ann Arbor. Thesis: “A Social History of Puebla de los Angeles, 1531-1560”. Thesis Advisor: Charles Gibson.

Honors and Awards

2011 ISCA Medal for Scientific Achievement.

2011 IEEE James L. Flanagan Speech and Audio Processing Award.

2009 Columbia Engineering School Alumni Association (CESAA) Distinguished Faculty Teaching Award for 2009.

2008– Fellow, International Speech Communication Association.

2007 Honorary Doctorate (Hedersdoktorer), KTH (Royal Institute of Technology), Stockholm.

2005–2007 IBM Faculty Award.

2005 Best Paper Award for a paper appearing in *Speech Communication* in 2003-2004 (given by EURASIP) for “Prosodic and other cues to speech recognition failures,” Julia Hirschberg, Diane Litman, and Marc Swerts, 2004.

1994– Fellow, American Association for Artificial Intelligence.

1994 Best Paper Award, Journal of the American Voice I/O Society (AVIOS).

1982–85 IBM Dissertation Fellowship, Computer and Information Science, University of Pennsylvania.

Journal Responsibilities

Member of Advisory Board of Editors, *Journal of Pragmatics*, 2011–.

co-Editor in Chief, *Speech Communication*, 2003–2006.

Editor in Chief, *Computational Linguistics*, 1993–2003.

Special Issue Editor:

Speech Communication: Special Issue on Error Handling in Spoken Dialogue, 2005, with Rolf Carlson and Marc Swerts.

IEEE Transactions on Speech and Audio Processing: Special Issue on Spontaneous Speech Processing, 2003, with Mary Beckman, Shuichi Itahashi, Tatsuya Kawahara, Mark Liberman, and Satoshi Nakamura.

Language and Speech: Special Double Issue on Prosody and Conversation, 41(3-4): 1999, with Marc Swerts.

Editorial Boards:

Computational Linguistics, 1990-93; *Speech Communication*, 1993-98; *Language and Speech*, 1994-2001.

Professional Activities

Chair, ISCA Distinguished Lecturers Selection Committee, 2010 -.

Board Member, Computing Research Society Committee on Women (CRA-W), 2009-.

Fellows Selection Committee, ISCA, 2008-.

Fellows Selection Committee, AAAI, 2006-8.

President, International Speech Communication Association (ISCA), (1500 members), 2005-2007.

Organizational Executive Committees:

Executive Committee, Association for Computational Linguistics (ACL), 1993-03; Executive Board, ISCA, 2000-2007; Permanent Council, International Conference on Spoken Language Processing (ICSLP), 1996-.

Advisory Boards:

HLT Advisory Board, 2004-; IM2 Scientific Board, Institut Dalle Molle d'Intelligence Artificielle Perceptive (IDIAP), 2002-; Advisory Committee, Japanese Science and Technology Agency Priority Program (Organized Research Combination System), Spontaneous Speech: Corpus and Processing Technology Advisory Panel, 1999-; Advisory Panel, MATE (Multilevel Annotation, Tools Engineering) Project (EU), 1998-2000; Scientific Advisory Committee, SIGDial, 1997-; Acoustical Society of America Speech Technical Committee, 1994-96; DARPA Committee on Database and Evaluation Issues, 1991-92.

Organizational Responsibilities for Conferences and Symposia:

General Chair, HLT-NAACL 2004;

Scientific/Program/Technical Committees:

LabPhon 2012; SIGDIAL 2011; ACII 2011; ACL-HLT 2011 (regular and Student Session); Constraints in Discourse, 2011; Interspeech 2011 (area chair); HCI 2011; ICPHS 2011; KES-Natural Language Visualization Workshop, 2010; LabPhon 12; EMNLP 2010; SLT 2010 (area chair for discourse); Coling 2010; CoSLI10; Interspeech 2010; PROPOR 2010; Prosody 2010; Second Language Studies Workshop, 2010; ACL 2010 (area chair for Spoken Language Processing); IEEE SLT 2010 (area chair); 7th ISCA Workshop on Speech Synthesis, Advisory Committee, 2010; NAACL-HLT 2009 (Area Chair for Discourse); International Conference on Affective Computing and Intelligent Interaction (ACII) 2009; ACL-IJNLP 2009; COLING 2008 (Area Chair); ProPor 2008; SigDial 2008; Speech Prosody 2008; ACL/HLT 2008; INTERSPEECH 2008; Spoken Language Technology 2008; ICPHS 2007; Searching Spontaneous Conversational Speech 2007 (SIGIR workshop); SigDial 2007; ParaLing 2007; INTERSPEECH 2007 (Area Chair); ACL 2007; HLT-NAACL 2007 (faculty advisor to PhD Symposium); INTERSPEECH 2006; Area Chair; HLT-NAACL 2006; AAAI-2006; Speech Prosody 2006 (Dresden); Eurospeech 2005 (Area Chair); Workshop on Interdisciplinary Approaches to Speech Indexing and Retrieval; May, 2004; Workshop on Higher-Level Linguistic and Other Knowledge for Automatic Speech Processing, May,

2004; ICSLP 2004 (Area Chair); ACL 2004; International Conference on Speech Prosody, Nara, Japan, 2004; EUROSPEECH-03 (Area Chair); ACL-03; HLT-NAACL-03; ICSLP-02 (Area Chair); Prosody 2002; ACL-02; NAACL-01; ACL-01; EUROSPEECH-01 (Area Chair); ESCA Workshop on Emotion and Speech, Belfast, 2000; ACL-00 Thematic Session on Machine Learning and Statistical NLP for Dialogue; Intonation: Models and ToBI Labeling, Workshop at ICPHS-99, Berkeley, 1999; AAAI-99 (Senior Program Committee); ESCA Workshop in Interactive Dialogue in Multi-Modal Systems, Munich, 1999; ICSLP-98; ESCA Tutorial and Research Workshop on Dialogue and Prosody, Eindhoven, September, 1999; Computational Psycholinguistics Conference, Berkeley, 1997; ESCA Workshop on Prosody, 1993; ACL-93; ACL-92, student session; DARPA Speech and Natural Language Workshop, 1992; AAAI-90; AAAI Symposium on Spoken Language Systems, 1989; ACL-89 (Program Chair); ACL-87; AAAI-86.

Evaluating Panels: Scientific and Industrial Advisory Board, IM2 Project, IDIAP, Martigny CH, 2002–; Evaluating Committee for the NUTEK (Swedish National Board for Industrial and Technical Development) Competence Centre for Speech Technology, CTT, Stockholm, March 2001; Technology Advisory Panel, 1999–; Evaluating committee, Dutch Science Foundation (NWO) Priority Research Programme in Language and Speech Technology, 2000.

Workshop Organization:

Co-organizer (with R. Carlson and M. Swerts), ISCA Tutorial and Research Workshop on Error Handling in Spoken Dialogue Systems, Chateau-d'Oex-Vaud, Switzerland, August 28–31; Co-organizer (with M. Bacchiani, D. Litman, and M. Ostendorf), ISCA Tutorial and Research Workshop on Prosody in Speech Recognition and Understanding, October, 2001; Co-organizer (with O. Rambow and M. Walker), ACL-99 Thematic Session on Discourse Tagging: Uses, Results and Applications; Co-organizer (with C. Kamm and M. Walker), ACL Workshop on Interactive Spoken Dialogue Systems, July, 1997; Co-organizer (with J. Olive, R. Sproat, and J. van Santen), Second ESCA/IEEE Workshop on Speech Synthesis, New Paltz, September 12–15, 1994; Co-organizer (with D. Litman), AAAI Fall Symposium (“Discourse Structure in Natural Language Understanding and Generation”), 1991.

PhD Advisor: Fadi Biadisy (PhD, 2011), Erica Cooper, Robert Coyne, Frank Enos (PhD 2008), Agustín Gravano (PhD 2009), Rivka Levitan, Jackson Liscombe (PhD 2008), Andrew Rosenberg (PhD 2009), Sameer Maskey (PhD 2008), Shimei Pan (PhD 2001), Morgan Ulinski, Columbia University.

Dissertation Committees:

Columbia: David Elson (current), Kapil Thadani (current), Sean White (2009), Alexander Haubold (2008), Maryam Kamvar (2008), Marios Athineos (2007), Michel Galley (2007), Elena Filatova (2007), Gabor Blasko (2007), Ani Nenkova (2006), Smaranda Murasan (2006), Lijun Tang (2006), Pablo Dubuoé (2005), Noemie Elhadad (2005), David Evans (2005), Regina Barzilay (2003), Min Kan (2002), Michael Elhadad (1992).

Elsewhere: Svetlana Stenichova, Stony Brook (2009); Brian Langner, CMU (current); Gabriel Murray, Edinburgh (2008); Hagen Soltau, CMU and Karlsruhe University (2005); Elizabeth Meddeb, Columbia Teachers College (2004); Raul Fernandez, MIT Media Lab (2003); Joachin Gustafson, KTH (Stockholm) (2002) (faculty opponent); Jinmook Kim, University of Maryland (2001–); Jeff Reynar, University of Pennsylvania (1998); Janet Cahn, MIT Media Lab (1998); Christine Nakatani, Harvard (1997).

Member: Association for Computational Linguistics, American Association for Artificial Intelligence, International Speech Communication Association.

Patents

U. S. Patent # 7664636, “System And Method For Indexing Voice Mail Messages by Speaker,” Julia Hirschberg, Sarangarajan Parthasarathy, Aaron Rosenberg, and Stephen Whittaker) (issued 2/16/10)

- U. S. Patent #76642235, "Method and apparatus for voice mail notes," Julia Hirschberg, Lawrence Jackel, and Stephen Whittaker (issued 2/16/10)
- U. S. Patent #7225126, "System and method for processing speech files," Julia Hirschberg and Stephen Whittaker (issued 5/29/07)
- U. S. Patent #6,173,262, "Text-to-speech system with automatically trained phrasing rules," Julia Hirschberg (issued 1/9/2001)
- U. S. Patent #6,003,005: "Text-to-speech system and a method and apparatus for training the same based upon intonational feature annotations of input text," Julia Hirschberg (issued 12/14/1999)
- "System And Method For Processing Speech Files", Julia Hirschberg and Stephen Whittaker (filed 06/12/2001)
- "System And Method For Processing Voicemail Messages Using Automatic Speech Recognition", Julia Hirschberg, Lawrence Jackel and Stephen Whittaker (filed 03/13/2001)
- "Method And Apparatus For Voice Mail Notes," Julia Hirschberg, Stephen Greenspan, and Stephen Whittaker (filed 12/16/1999)
- "System And Method For Gisting, Browsing and Searching Voicemail Using Automatic Speech Recognition," Julia Hirschberg and Stephen Whittaker (filed 12/08/1999)
- "Spoken Content Based Audio Navigation," John Choi, Julia Hirschberg, Christine Nakatani, and Stephen Whittaker (filed 07/23/1999)

Grants

- PI, NSF IIS "RI-Medium: Collaborative Research: From Text to Pictures," 6/10/09-6/9/12, \$912,496 (joint work with Owen Rambow, CCLS, Columbia University, and Richard Sproat, OHSU).
- PI, "Novel Information Gathering and Harvesting Techniques for Intelligence in Global Autonomous Language Environments," DARPA, subcontract to IBM, 9/1/09-6/30/10.
- NSF IIS 0904361, "RI-Medium: Collaborative Research: From Text to Pictures," 6/10/09-6/9/12.
- "Characterizing ASD Phenotype by Multimedia Signal Processing and NLP," Simons Foundation, (Noemie Elhadad, PI), 7/1/09-6/30/11.
- NSF IIS-Robust Intelligence 0803148, "RI-Medium: Collaborative: Corpus-Based Studies of Lexical, Acoustic-Prosodic, and Discourse Entrainment in Spoken Dialogue," 9/1/08-8/31/11, with Ani Nenkova, University of Pennsylvania.
- NSF IIS-HLC 053456, "Collaborative Research: Translating Prosody in an English/Chinese Language Tutoring System," 2/15/06-2/14/11. with Chilin Shih and Gary Cziko, University of Illinois.
- DARPA GALE, Julia Hirschberg, Kathleen McKeown, "Novel Information Gathering and Harvesting Techniques for Intelligence in Global Autonomous Language Environments," with SRI International, 9/01/05-
- NSF IIS-0325399, "ITR: Recognizing and Understanding Emotion in Speech," 9/1/03-8/31/10, with University of Colorado and SRI/ICSI.
- NSF REU, 6/1/06-8/15/06.

NSF IIS-0328295, “Collaborative Research: Monitoring Student State in Tutorial Spoken Dialogue,” 6/1/03–5/31/06, with Diane Litman, University of Pittsburgh.

NSF IIS-0307905, “Dialogue Prosody in Interactive Voice Response Systems,” 6/1/03–5/31/08, with Gregory Ward, Northwestern University.

“Multilingual Multidocument Information Tracking and Summarization,” DARPA, 3/1/04–2/28/05, PI: Kathleen McKeown.

IBM Faculty Award, 2005–2007.

Lockheed Martin, “Predictors of Deceptive Speech,” 5/1/07–4/30/08.

Refereed Publications

2012. Luciana Lucente, Julia Hirschberg, and Plínio Barbosa, “Intonational Prominence and Information Status in Brazilian Portuguese,” GSCP 2012, Belo Horizonte, MG, Brazil.

2011. Luciana Lucente, Julia Hirschberg and Plínio Barbosa, “Intonation, Discourse Structure and Information Status in Spontaneous Speech,” ETAP 2, Montreal.

2011. Agustín Gravano, Rivka Levitan, Laura Willson, Stefan Benus, Julia Hirschberg, and Ani Nenkova, “Acoustic and prosodic correlates of social behavior,” Interspeech 2011, Florence.

2011. Rivka Levitan and Julia Hirschberg, “Measuring acoustic-prosodic entrainment with respect to multiple levels and dimensions,” Interspeech 2011, Florence.

2011. Camille Guinaudeau and Julia Hirschberg, “Accousting for prosodic information to improve ASR-based topic tracking for TV Broadcast News,” Interspeech 2011, Florence.

2011. Fadi Biadisy, Julia Hirschberg, and Daniel Ellis, “Dialect and Accent Recognition using Phonetic-Segmentation supervectors,” Interspeech 2011, Florence.

2011. Fadi Biadisy, William Yang Wang, Andrew Rosenberg, and Julia Hirschberg, “Intoxication Detection using Phonetic, Phonotactic and Prosodic Cues,” Interspeech 2011.

2011. Bob Coyne, Cecilia Schudel, Michael Bitz, and Julia Hirschberg, “Evaluating a Text-to-Scene Generation System as an Aid to Literacy,” ISCA Workshop on Speech and Language Technology in Education (SLaTE) 2011.

2011. Rivka Levitan, Agustín Gravano, and Julia Hirschberg, “Entrainment in Speech Preceding Backchannels,” ACT-HLT 2011, Portland OR.

2011. Stefan Benus, Agustín Gravano, and Julia Hirschberg, “Pragmatic aspects of temporal accommodation in turn-taking,” *Journal of Pragmatics* 43 (2011):3001-3027.

2011. Agustín Gravano, Julia Hirschberg, and Stefan Benus, “Affirmative Cue Words in Task-Oriented Dialogues,” *Computational Linguistics*, 2011 (In Press).

2011. Agustín Gravano and Julia Hirschberg, “Turn-taking cues in task-oriented dialogue,” *Computer Speech and Language*, 25(3):601-634.

2010. Bob Coyne, Richard Sproat, and Julia Hirschberg, “Spatial Relations in Text-to-Scene Conversion,” Computational Models of Spatial Language (CoSLI) 2010, Mount Hood/Portland, OR.

2010. Mattias Heldner, Jens Edlund, and Julia Hirschberg, “Pitch similarity in the vicinity of backchannels,” Interspeech 2010, Makuhari.

2010. Tara Sainath, Sameer Maskey, Dimitri Kanevsky, Bhuvana Ramabhadran, David Nahamoo, and Julia Hirschberg, "Sparse Representations for Text Categorization," Interspeech 2010, Makuhari.
2010. Fadi Biadisy, Julia Hirschberg, and Michael Collins, "Dialect Recognition Using a Phone-GMM-Supervector-Based SVM kernel," Interspeech 2010, Makuhari.
2010. Marc G. J. Swerts and Julia Hirschberg, "Prosodic predictors of upcoming positive or negative content in spoken messages," *Journal of the Acoustical Society of America*, 128-3.
2010. Julia Hirschberg, Anna Hjalmarsson, and Noemie Elhadad, "You're as Sick as You Sound: Using Computational Approaches for Modeling Speaker State to Gauge Illness and Recovery," in A. Neustein, ed., *Speech in Mobile Environments, Call Centers and Clinics: Views of Speech Industry Leaders*, Springer.
2010. Jens Edlund, Mattias Heldner, Samer Al Moubayed, Agustín Gravano, and Julia Hirschberg, "Very short utterances in conversation," Fonetik 2010, Lund.
2010. Andrew Rosenberg, Julia Hirschberg, and Kim Manis, "Perception of English Prominence by Native Mandarin Chinese Speakers," Speech Prosody 2010, Chicago.
2010. Andrew Rosenberg and Julia Hirschberg, "Production of English Prominence by Native Mandarin Chinese Speakers," Workshop on Prosodic Prominence Perceptual and Automatic Identification, Chicago.
2009. Preben Wik, Rebecca Hincks, Julia Hirschberg, "Responses to Ville: A virtual language teacher for Swedish," SLaTE 2009, Wroxall Abbey, UK.
2009. Rolf Carlson and Julia Hirschberg, "Cross Cultural Perception of Discourse Phenomena," In Proceedings of Interspeech 2009, Brighton, UK.
2009. Jens Edlund, Mattias Heldner, Julia Hirschberg, "Pause and gap length in face-to-face interaction," In Proceedings of Interspeech 2009, Brighton, UK.
2009. Fadi Biadisy, Julia Hirschberg, "Using Prosody and Phonotactics in Arabic Dialect Identification," In Proceedings of Interspeech 2009, Brighton, UK.
2009. Agustín Gravano, Julia Hirschberg, "Backchannel-inviting cues in task-oriented dialogue," In Proceedings of SigDial 2009, pages 253-261. London, UK.
2009. Agustín Gravano, Julia Hirschberg, "Turn-yielding cues in task-oriented dialogue," In Proceedings of Interspeech 2009, Brighton, UK.
2009. Andrew Rosenberg and Julia Hirschberg, "Charisma Perception from Text and Speech," *Speech Communication*, 51-7 (July 2009), pp. 563-656.
2009. Andrew Rosenberg and Julia Hirschberg, "Detecting Pitch Accents at the Word, Syllable and Vowel Level," NAACL-HLT, Boulder.
2009. Fadi Biadisy, Julia Hirschberg, and Nizar Habash, "Improving the Arabic Pronunciation dictionary for Phone and Word Recognition with Linguistically-Based Pronunciation Rules," NAACL-HLT, Boulder.
2009. Fadi Biadisy, Julia Hirschberg, and Nizar Habash, "Spoken Arabic Dialect Identification Using Phonotactic Modeling," EACL Workshop on Computational Approaches to Seminitic Languages, Athens.
2009. Sasha Caskey, Kathleen McKeown, Desmond Jordan, and Julia Hirschberg, "Spoken Language Input for a Patient Note System," International Conference on Health Information, Porto.
2008. Sameer Maskey, Andrew Rosenberg, and Julia Hirschberg, "Intonational Phrases for Speech Summarization," Interspeech 2008, Brisbane.

2008. Ani Nenkova, Agustín Gravano and Julia Hirschberg, “High frequency word entrainment in spoken dialogue,” ACL 2008 Columbus, Ohio.
2008. Fadi Biadisy, Julia Hirschberg, and Elena Filatova, “An Unsupervised Approach to Biography Production using Wikipedia,” ACL 2008, Columbus, Ohio.
2008. Agustín Gravano, Stefan Benus, Julia Hirschberg, Elisa Sneed German, and Gregory Ward, “The Effect of contour type and epistemic modality on the assessment of speaker certainty,” Speech Prosody 2008, Campinas.
2008. Fadi Biadisy, Andrew Rosenberg, Rolf Carlson, Julia Hirschberg, and Eva Strangert, “A Cross-Cultural Comparison of American, Palestinian, and Swedish Perception of Charismatic Speech,” Speech Prosody 2008, Campinas.
2007. Stefan Benus, Agustín Gravano, and Julia Hirschberg, “The Prosody of Backchannels in American English,” ICPHS 2007, Saarbruecken.
2007. Stefan Benus, Agustín Gravano, and Julia Hirschberg, “Prosody, emotions, and...*whatever*,” Interspeech 2007, Antwerp.
2007. Fadi Biadisy, Julia Hirschberg, Andrew Rosenberg, and Wisam Dakka, “Comparing American and Palestinian Perceptions of Charisma Using Acoustic-Prosodic and Lexical Analysis,” Interspeech 2007, Antwerp.
2007. Agustín Gravano, Stefan Benus, Hector Chavez, Julia Hirschberg, and Lauren Wilcox, “On the Role of Context and Prosody in the Interpretation of *okay*,” ACL 2007, Prague.
2007. Andrew Rosenberg, Mehrbod Sharifi, and Julia Hirschberg, “Varying Input Segmentation for Story Boundary Detection in English, Arabic and Mandarin Broadcast News,” Interspeech 2007, Antwerp.
2007. Andrew Rosenberg and Julia Hirschberg, “Detecting Pitch Accent Using Pitch-corrected Energy-based Predictors,” Interspeech 2007, Antwerp.
2007. Andrew Rosenberg and Julia Hirschberg, “V-Measure: A conditional entropy-based external cluster evaluation measure,” EMNLP 2007, Prague.
2007. Frank Enos, Elizabeth Shriberg, Martin Graciarena, Julia Hirschberg, and Andreas Stolcke, “Detecting Deception Using Critical Segments,” Interspeech 2007, Antwerp.
2007. Julia Hirschberg, Agus Gravano, Ani Nenkova, Elisa Sneed, and Gregory Ward “Intonational Overload: Uses of the H* !H* L- L% Contour in Read and Spontaneous Speech,” Laboratory Phonology 9, ed. J. Cole and J. Hualde, pp. 455-482.
2007. Whittaker, S. and J. Hirschberg, “Accessing Speech Using Strategic Fixation,” *Computer Speech and Language*, 21(2):296–324.
2006. Jennifer Venditti, Jackson Liscombe, and Julia Hirschberg, “Intonational Cues to Student Questions in Tutoring Dialogs,” INTERSPEECH 2006, Pittsburgh.
2006. Jackson Liscombe, Jennifer Venditti, and Julia Hirschberg, “Detecting Question-Bearing Turns in Spoken Tutorial Dialogues,” INTERSPEECH 2006, Pittsburgh. (Best Student Paper Award — one of 3).
2006. Sameer Maskey and Julia Hirschberg, “Soundbite Detection in Broadcast News Domain,” INTERSPEECH 2006, Pittsburgh.
2006. Frank Enos, Stefan Benus, Robin L. Cautin, Martin Graciarena, Julia Hirschberg, and Elizabeth Shriberg, “Personality Factors in Human Deception Detection: Comparing Human to Machine Performance,” INTERSPEECH 2006, Pittsburgh.

2006. Andrew Rosenberg and Julia Hirschberg, "On the Correlation between Energy and Pitch Accent in Read English Speech," INTERSPEECH 2006, Pittsburgh.
2006. Agustín Gravano and Julia Hirschberg "Effect of Genre, Speaker, and Word Class on the Realization of Given and New Information," INTERSPEECH 2006, Pittsburgh.
2006. Diane Litman, Julia Hirschberg, and Marc Swerts, "Characterizing and Predicting Corrections in Spoken Dialogue Systems," *Computational Linguistics*, 32 (3):417–438.
2006. Frank Enos and Julia Hirschberg, "A Framework for Eliciting Emotional Speech: Capitalizing on the Actor's Process," LREC 2006, Genoa.
2006. Sameer Maskey and Julia Hirschberg, "Summarizing Speech Without Text Using Hidden Markov Models," HLT-NAACL 2006, New York, June.
2006. Andrew Rosenberg and Julia Hirschberg, "Story Segmentation of Broadcast News in English, Mandarin and Arabic " HLT-NAACL 2006, New York, June.
2006. Stefan Benus, Frank Enos, Julia Hirschberg and Elizabeth Shriberg, "Pauses in Deceptive Speech," Speech Prosody 2006, Dresden.
2006. Martin Graciarena, Elizabeth Shriberg, Andreas Stolcke, Frank Enos, Julia Hirschberg, and Sachin Kajarekar, "Combining Prosodic Lexical and Cepstral Systems for Deceptive Speech Detection," ICASSP-2006.
2005. Sameer Maskey and Julia Hirschberg, "Comparing Lexical, Acoustic/Prosodic, Structural and Discourse Features for Speech Summarization," INTERSPEECH 2005, September.
2005. Jackson Liscombe, Jennifer Venditti, and Julia Hirschberg, "Detecting Certainty in Spoken Tutorial Dialogues," INTERSPEECH 2005, September.
2005. Julia Hirschberg, Stefan Benus, Jason M. Brenier, Frank Enos, Sarah Friedman, Sarah Gilman, Cynthia Girand, Martin Graciarena, Andreas Kathol, Laura Michaelis, Bryan Pellom, Elizabeth Shriberg, Andreas Stolcke, "Distinguishing Deceptive from Non-Deceptive Speech," INTERSPEECH 2005, Lisbon, September.
2005. Andrew Rosenberg and Julia Hirschberg, "Acoustic/Prosodic and Lexical Correlates of Charismatic Speech," INTERSPEECH 2005, September.
2005. Kathleen McKeown, Rebecca Passonneau, David Elson, Ani Nenkova, Julia Hirschberg, "Do Summaries Help?" SIGIR 2005.
2005. Rolf Carlson, Julia Hirschberg, and Marc Swerts, "Cues to upcoming Swedish prosodic boundaries: subjective judgment studies and acoustic correlates," *Speech Communication*, 46 (2005):326–333.
2004. Julia Hirschberg, Diane Litman, and Marc Swerts, "Prosodic and Other Cues to Speech Recognition Failures," *Speech Communication*, 43(1-2):155–75.
2004. Michel Galley, Kathleen McKeown, Julia Hirschberg, and Elizabeth Shriberg, "Identifying Agreement and Disagreement in Conversational Speech: Use of Bayesian Networks to Model Pragmatic Dependencies," ACL 2004, Barcelona.
2004. Rolf Carlson, Julia Hirschberg, and Marc Swerts, "Prediction of upcoming Swedish prosodic boundaries by Swedish and American listeners," Proceedings of the International Conference on Speech Prosody 2004, Nara, March 23–26.

2004. Beckman, M. E., Hirschberg, J., and Shattuck-Hufnagel, S., "The original ToBI system and the evolution of the ToBI framework," S.-A. Jun, ed., *Prosodic Typology: The Phonology of Intonation and Phrasing*. Oxford University Press, Chapter 2, pp. 9–54.
2003. Whittaker, S. and J. Hirschberg, "Look or Listen: Discovering Effective Techniques for Accessing Speech Data," in E. O'Neill, P. Palanque, and P. Johnson, eds., *Proceedings of Human Computer Interaction*, pp. 253–69.
2003. Sameer Maskey and Julia Hirschberg, "Automatic Summarization of Broadcast News using Structural Features," Proceedings of Eurospeech 2003, Geneva.
2003. Jackson Liscombe, Jennifer Venditti, and Julia Hirschberg "Classifying Subjective Ratings of Emotional Speech," Proceedings of Eurospeech 2003, Geneva.
2003. J. Hirschberg, J. Liscombe and J. Venditti, "Experiments in Emotional Speech," *Proceedings of the ISCA and IEEE Workshop on Spontaneous Speech Processing and Recognition*, Tokyo.
2003. Jennifer Venditti and Julia Hirschberg, "Intonation and Discourse Processing," Proceedings of ICPhS 2003, Barcelona.
2002. Shimei Pan, Kathleen McKeown, and Julia Hirschberg, "Exploring Features from Natural Language Generation for Prosody Modeling," *Computer Speech and Language*, 16 (3-4), pp. 457–90.
2002. J. Hirschberg, "The Pragmatics of Intonational Meaning", in B. Bel & I. Marlien, eds., Proceedings of the Speech Prosody 2002 conference, Aix-en-Provence: Laboratoire Parole et Langage, April 11-13, pp. 65–68.
2002. M. Ringel and J. Hirschberg, "Automated Message Prioritization: Making Voicemail Retrieval More Efficient," CHI 2002.
2002. J. Hirschberg, "Communication and Prosody: Functional Aspects of Prosody," *Speech Communication: Special Issue on Dialogue and Prosody*: 36:31–43, ed. J. Terken and M. Swerts.
2002. S. Whittaker, J. Hirschberg, B. Amento, L. Stark, M. Bacchiani, P. Isenhour, L. Stead, G. Zamchick, and A. Rosenberg, "SCANMail: a voicemail interface that makes speech browsable, readable and searchable," *Proceedings of CHI-02*.
2001. Julia Hirschberg, Diane Litman, and Marc Swerts. "Detecting Misrecognitions and Corrections in Spoken Dialogue Systems from 'Aware' Sites," ISCA Tutorial and Research Workshop on Prosody in Speech and Understanding, Red Bank, NJ, October.
2001. Julia Hirschberg, Michiel Bacchiani, Phil Isenhour, Aaron Rosenberg, Larry Stead, Steve Whittaker, Gary Zamchick
"Audio Browsing and Search in the Voicemail Domain," Proceedings of NLPRS-2001, Tokyo.
2001. S. Whittaker and J. Hirschberg, "The Character, Value, and Management of Paper Archives," *Transactions on Computer Human Interaction*, 8:150–170.
2001. D. Litman, J. Hirschberg and M. Swerts, "Predicting User Reactions to System Error," Proceedings of ACL 2001, Toulouse, pages 362–369.
2001. J. Hirschberg, D. Litman and M. Swerts, "Identifying User Corrections Automatically in Spoken Dialogue Systems," Proceedings of NAACL 2001, Pittsburgh, pages 208–215.
2001. Julia Hirschberg, Marc Swerts, and Diane Litman, "Labeling Corrections and Aware Sites in Spoken Dialogue Systems," Proceedings of SIGDIAL 2001, Aalborg.

2001. J. Hirschberg, Michiel Bacchiani, Don Hindle, Phil Isenhour, Aaron Rosenberg, Litza Stark, Larry Stead, Gary Zamchick, and Steve Whittaker, "SCANMail: Browsing and Searching Speech Data by Content," Proceedings of Eurospeech 2001, Aalborg.
2001. A. Rosenberg, J. Hirschberg, M. Bacchiani, S. Parthasarathy, P. Isenhour and L. Stead, "Caller Identification for the SCANMail Voicemail Browser," Proceedings of Eurospeech 2001, Aalborg.
2001. S. Pan, K. McKeown and J. Hirschberg, "Semantic Abnormality and its Realization in Spoken Language," Proceedings of Eurospeech 2001, Aalborg.
2001. A. Rosenberg, J. Hirschberg, M. Bacchiani, S. Parthasarathy, P. Isenhour, L. Stead, "Caller Identification for the SCANMail Voicemail Browser," Proceedings of ICASSP 2001, Salt Lake City.
2001. J. Hirschberg and O. Rambow, "Learning Prosodic Features using a Tree Representation," Proceedings of Eurospeech 2001, Aalborg.
2001. M. Bacchiani, J. Hirschberg, A. Rosenberg, S. Whittaker, D. Hindle P. Isenhour, M. Jones, L. Stark and G. Zamchick, "SCANMail: Audio Navigation in the Voicemail Domain," HLT 2001, San Diego, March.
2001. A. K. Syrdal, J. Hirschberg, M. Beckman, and J. McGory, "Automatic ToBI prediction and alignment to speed manual labeling of prosody," *Speech Communication: Special Issue on Speech Annotation and Corpus Tools*, 33:1-2 (January).
2000. J. Hirschberg and C. Avesani, "Prosodic Disambiguation in English and Italian," in A. Botinis, ed., *Intonation: Analysis, Modelling and Technology*, Kluwer.
2000. J. Hirschberg, "A Corpus-Based Approach to the Study of Speaking Style," in *Festschrift in Honor of Gosta Bruce*, ed. M. Horne, Kluwer.
2000. S. Pan and J. Hirschberg, "Modeling Local Context for Pitch Accent Prediction," ACL-00, Hong Kong.
2000. L. Stark, S. Whittaker, and J. Hirschberg, "ASR Satisficing: The Effects of ASR Accuracy on Speech Retrieval," ICSLP-00, Beijing.
2000. A. Rosenberg, S. Parthasarathy, J. Hirschberg, and S. Whittaker, "Foldering Voicemail Messages by Caller Using Text Independent Speaker Recognition," ICSLP-00, Beijing.
2000. M. Swerts, D. Litman, and J. Hirschberg, "Corrections in Spoken Dialogue Systems," ICSLP-00, Beijing, pages 254-257.
2000. J. Hirschberg, D. Litman, and M. Swerts "Prosodic Prediction of Speech Recognition Errors," ICSLP-00, Beijing.
2000. R. Barzilay, M. Collins, J. Hirschberg, and S. Whittaker, "Identification of Speaker Role in Radio Broadcasts," AAAI-00, Austin.
2000. S. Whittaker and R. Davis and J. Hirschberg and U. Muller. "Jotmail: a voicemail interface that enables you to see what was said," Proceedings of CHI2000 Conference on Human Computer Interaction, pp. 89-96.
2000. P. Koehn, S. Abney, J. Hirschberg, and M. Collins, "Improving Intonational Phrasing with Syntactic Information," Proceedings of ICASSP-00, Istanbul.
2000. D. J. Litman, J. B. Hirschberg, and M. Swerts, "Predicting Automatic Speech Recognition Performance Using Prosodic Cues," Proceedings of NAACL-00 (North American Association for Computational Linguistics), Seattle, May.

2000. J. Hirschberg, S. Whittaker, L. Stark, D. Hindle, F. Pereira, A. Singhal, "Speech Retrieval: Principles for Designing and Evaluating UIs for Access to Spoken Information," HCIC (Human Computer Interaction Consortium).
1999. A. K. Syrdal, J. Hirschberg, and J. McGory, "Automatic ToBI prediction and alignment to speed manual labeling of prosody," ASA-99.
1999. J. Hirschberg, D. Litman, and M. Swerts, "Prosodic Cues to Recognition Errors," Proceedings of ASRU-99 (Automatic Speech Recognition and Understanding), Keystone CO.
1999. S. Whittaker, J. Hirschberg, J. Choi, D. Hindle, F. Pereira, A. Singhal, "SCAN: Designing and Evaluating User Interfaces to Support Retrieval from Speech Archives," ACM SIGIR-99.
1999. J. Choi, D. Hindle, J. Hirschberg, F. Pereira, A. Singhal and S. Whittaker, "Spoken Content-Based Audio Navigation (SCAN)", in Proceedings of ICPHS-99 (International Congress of Phonetics Sciences), San Francisco, August.
1999. J. Hirschberg, S. Whittaker, D. Hindle, F. Pereira, and A. Singhal, "Finding Information in Audio: A New Paradigm for Audio Browsing and Retrieval", Accessing Information in Spoken Audio, ESCA ETRW Workshop, Cambridge, UK, April.
1999. A. Singhal, J. Choi, D. Hindle, J. Hirschberg, F. Pereira, S. Whittaker, "AT&T at TREC-7 SDR Track," in Proceedings of the Broadcast News Transcription and Understanding Workshop.
1998. S. Whittaker, J. Choi, J. Hirschberg, and C. Nakatani, "What You See Is Almost What You Hear: Design principles for accessing speech archives," ICSLP-98, Sydney.
1998. J. Choi, D. Hindle, J. Hirschberg, I. Magrin-Chagnolleau, C. Nakatani, F. Pereira, A. Singhal, and S. Whittaker, "SCAN - Speech Content Based Audio Navigator: A Systems Overview", ICSLP-98, Sydney.
1998. J. Hirschberg and C. Nakatani, "Acoustic Indicators of Topic Segmentation," ICSLP-98, Sydney.
1998. C. Nakatani, S. Whittaker, and J. Hirschberg, "Now You Hear It, Now You Don't: Empirical Studies of Audio Browsing Behavior," ICSLP-98, Sydney.
1998. J. Choi, D. Hindle, J. Hirschberg, I. Magrin-Chagnolleau, C. Nakatani, F. Pereira, A. Singhal, S. Whittaker. "An Overview of the AT&T Spoken Document Retrieval System", in Proceedings of the 1998 DARPA Broadcast News Transcription and Understanding Workshop, Lansdowne, VA, pp. 182-190.
1998. S. Whittaker, J. Hirschberg and C. Nakatani, "Play it again: a study of the factors underlying speech browsing behavior," CHI-98, Los Angeles, 1998.
1998. S. Whittaker, J. Hirschberg, and C. Nakatani, "All talk and all action: strategies for managing voicemail messages", CHI-98, Los Angeles, 1998.
1998. J. Hirschberg and C. Nakatani, "Using Machine Learning to Identify Intonational Segments," Proceedings of the AAAI Spring Symposium on Applying Machine Learning to Discourse Processing, Palo Alto, March.
1998. J. Hirschberg and C. Avesani, "The Role of Prosody in Disambiguating Potentially Ambiguous Utterances in English and Italian," ESCA Tutorial and Research Workshop on Intonation: Theory, Models and Applications, Athens, September, pp. 189-92.
1997. J. Hirschberg and S. Whittaker, "Studying search and archiving in a real audio database," Working Notes of the AAAI-97 Spring Symposium on Intelligent Integration and Use of Text, Image, Video and Audio Corpora, March 24-26, Stanford, pp. 70-76.

1996. J. Hirschberg and C. Nakatani, "A Prosodic Analysis of Discourse Segments in Direction-Giving Monologues," Proceedings of the Association for Computational Linguistics, Santa Cruz, June, pp. 286–293.
1996. J. Hirschberg and P. Prieto, "Training Intonational Phrasing Rules Automatically for English and Spanish Text-to-Speech", *Speech Communication*, 18:281–290.
1996. A. Ljolje, J. van Santen, and J. Hirschberg "Automatic speech segmentation for concatenative inventory selection," In J. van Santen, R. Sproat, J. Olive and J. Hirschberg (eds.), *Progress in Speech Synthesis*, New York, Springer-Verlag, pp. 305–312.
1995. J. Hirschberg and G. Ward. "The Interpretation of the High-Rise Question Contour in English," in *Journal of Pragmatics* 24(5):407–412.
1995. J. Hirschberg and R. Sproat, "Pitch accent prediction from text analysis," in J. Cole, G. M. Green and J. L. Morgan, eds., *Linguistics and Computation*, CSLI, Stanford, pp. 281–296.
1995. C. Avesani, J. Hirschberg, and P. Prieto, "The Intonational Disambiguation of Potentially Ambiguous Utterances in English, Italian and Spanish," Proceedings of ICPHS-95, Stockholm, August, Vol. 1, pp. 174–177.
1995. J. Hirschberg, "Prosodic and Other Acoustic Cues to Speaking Style in Spontaneous and Read Speech," Proceedings of ICPHS-95, Stockholm, August, Vol. 2, pp. 36–43.
1995. J. Hirschberg, C. Nakatani, and B. Grosz, "Conveying Discourse Structure through Intonation Variation," ESCA Workshop on Spoken Dialogue Systems, Visgo, Denmark, May/June, pp. 189–192.
1995. C. Nakatani, B. Grosz, and J. Hirschberg, "Discourse Structure in Spoken Language: Studies on Speech Corpora," Proceedings of the AAAI Spring Symposium on Empirical Methods in Discourse Interpretation and Generation, Stanford, March.
1995. P. Prieto, J. van Santen, and J. Hirschberg, "Tonal alignment patterns in Spanish," *Journal of Phonetics*, 23.
1994. J. Terken and J. Hirschberg, "Deaccentuation and Persistence of Grammatical Function and Surface Position," *Language and Speech*, 37-2:125–145.
1994. J. Hirschberg and P. Prieto, "Training intonational phrasing rules automatically for English and Spanish TTS," Proceedings of the Second ESCA/IEEE Workshop on Speech Synthesis, New Paltz, September, pp. 159–162.
1994. A. Ljolje, J. Hirschberg, and J. van Santen, "Automatic Speech Segmentation for Concatenative Inventory Selection," Proceedings of the Second ESCA/IEEE Workshop on Speech Synthesis, New Paltz, September, pp. 93–96.
1994. P. Prieto, J. van Santen, and J. Hirschberg, "Patterns of F0 Peak Placement in Mexican Spanish," Proceedings of the Second ESCA/IEEE Workshop on Speech Synthesis, New Paltz, September, pp. 33–36.
1994. J. P. H. van Santen and J. Hirschberg, "Segmental Effects on Timing and Height of Pitch Contours," Proceedings of ICSLP-94, Yokohama, September, pp. 719–722.
1994. J. Hirschberg and B. Grosz, "Intonation and Discourse Structure in Spontaneous and Read Direction-giving," Proceedings, International Symposium on Prosody, September 18, Yokohama, Japan, organized by Hiroya Fujisaki, Japan Society for the Promotion of Science, No. 152 Committee on Intelligent Processing of Spoken and Written Languages, pp. 103–109.

1994. J. Pitrelli, Mary Beckman, and J. Hirschberg, "Evaluation of Prosodic Transcription Labeling Reliability in the ToBI Framework," Proceedings of ICSLP-94, Yokohama, September, pp. 123–126.
1994. B. Grosz, J. Hirschberg, and C. Nakatani, "A Study of Intonation and Discourse Structure in Directions," Proceedings of the Workshop on the Integration of Natural Language and Speech Processing, AAAI-94, August 1.
1994. J. Hirschberg and C. Nakatani, "Modeling Acoustic and Prosodic Characteristics of Repair Disfluencies for Speech Recognition," *Journal of AVIOS*, 15 (best paper award for 1994).
1994. C. Nakatani and J. Hirschberg, "A Corpus-based study of repair cues in spontaneous speech," *Journal of the Acoustical Society of America*, 95-3: 1603–1616.
1993. J. Hirschberg, "Studies of Intonation and Discourse," Proceedings of the ESCA Workshop on Prosody, Lund University, September.
1993. J. Hirschberg and C. Nakatani, "A Speech-First Model for Repair Identification in Spoken Language Systems," Proceedings of EUROSPEECH-93, Berlin, September.
1993. J. Hirschberg and J. Terken, "Deaccentuation and Persistence of Grammatical Function and Surface Position," Proceedings of EUROSPEECH-93, Berlin, September.
1993. C. Nakatani and J. Hirschberg, "A Speech-First Model for Repair Detection and Correction," Proceedings of ACL-93, Columbus, June.
1993. C. Nakatani and J. Hirschberg, "A Speech-First Model for Repair Identification in Spoken Language Systems," Proceedings of the ARPA Workshop on Human Language Technology, Plainsboro, March.
1993. J. Hirschberg and D. Litman, "Empirical Studies on the Disambiguation of Cue Phrases," *Computation Linguistics*, 19-3:501–530.
1993. J. Hirschberg, "Pitch Accent in Context: Predicting Intonational Prominence from Text," *Artificial Intelligence*, 63(1-2), 1993.
1992. R. Sproat, J. Hirschberg, and D. Yarowsky, "A Corpus-Based Synthesizer," Proceedings of ICSLP-92, Banff, October, pp. 563–566.
1992. K. Silverman, M. Beckman, J. Pierrehumbert, M. Ostendorf, C. Wightman and J. Hirschberg, "TOBI: A Standard for Labeling Prosody," Proceedings of ICSLP-92, Banff, October, pp. 867–879.
1992. B. Grosz and J. Hirschberg, "Some Intonational Characteristics of Discourse Structure," Proceedings of ICSLP-92, Banff, October, pp. 429–432.
1992. J. Hirschberg and B. Grosz, "Intonational Features of Local and Global Discourse Structure," Proceedings of the DARPA Workshop on Spoken Language Systems, Arden House, February.
1992. J. Hirschberg and R. Sproat, "Pitch Accent Prediction from Text Analysis," *Proceedings of the Conference on Linguistics and Computation*, University of Illinois at Urbana-Champaign, CSLI Publications, Chicago, University of Chicago Press.
1992. Michelle Wang and J. Hirschberg, "Automatic Classification of Intonational Phrase Boundaries," *Computer Speech and Language*, 6:175–196.
1992. J. Hirschberg and G. Ward, "The Influence of Pitch Range, Duration, Amplitude, and Spectral Features on the Interpretation of $L^*+H L H\%$," *Journal of Phonetics*, 20(2): 241–251.
1992. J. Hirschberg, "Using Discourse Context to Guide Pitch Accent Decisions in Synthetic Speech," in *Talking Machines: Theories, Models and Applications*, ed. G. Bailly and C. Benoit, Elsevier, pp.367–376.

1991. J. Hirschberg, "Using Text Analysis to Predict Intonational Boundaries," Proceedings of EUROSPEECH-91, Genoa, September, pages 1275–1278.
1991. M. Wang and J. Hirschberg, "Predicting Intonational Phrasing from Text," Proceedings of ACL-91, Berkeley.
1991. M. Wang and J. Hirschberg, "Predicting Intonational Boundaries Automatically from Text: The ATIS Domain" Proceedings of the DARPA Workshop on Spoken Language Systems, February.
1991. M. Wang and J. Hirschberg, "Intonational Boundaries and Syntactic Structure," Conference Proceedings: Current Issues in Natural Language Processing, February 15-16, Center for Cognitive Science, University of Texas at Austin.
1991. J. Hirschberg. *A Theory of Scalar Implicature*. New York: Garland Press. (PhD thesis. Also available as MS-CIS-85-56 from the Department of Computer and Information Science, University of Pennsylvania.)
1991. J. Hirschberg and G. Ward, "Accent and Bound Anaphora," *Cognitive Linguistics*, 2-2:101–121.
1991. G. Ward and J. Hirschberg, "A Pragmatic Analysis of Tautological Utterances," *Journal of Pragmatics*, 15-6:507–520.
1990. J. Hirschberg, S. Riederer, J. Rowley, and A. Syrdal, "Voice Response Systems: Technologies and Applications," *AT&T Technical Journal: Speech Technologies* 69-5, September/October, pp. 42–51.
1990. J. Hirschberg, "Using Discourse Context to Guide Pitch Accent Decisions in Synthetic Speech", Proceedings of the European Speech Communication Association Workshop on Speech Synthesis, Autrans, France, September.
1990. D. Litman and J. Hirschberg, "Disambiguating Cue Phrases in Text and Speech," Proceedings of COLING-90, Helsinki, August.
1990. J. Hirschberg, "Accent and Discourse Context: Assigning Pitch Accent in Synthetic Speech," Proceedings of AAAI-90, Boston, July.
1989. J. Hirschberg, "Distinguishing Questions by Contour in Speech Recognition Tasks," Proceedings of the DARPA Workshop on Spoken Language Systems, October.
1989. J. Hirschberg and G. Ward, "On the Role of Accent in the Interpretation of Bound Anaphora," Northwestern University Working Papers in Linguistics, Vol. 2, Spring.
1988. J. Hirschberg and G. Ward, "Intonation and Propositional Attitude: The Pragmatics of L*+H L H%," in Proceedings of the Fifth Eastern States Conference on Linguistics, Philadelphia, September.
1988. J. Davis and J. Hirschberg, "Assigning Intonational Features in Synthesized Spoken Directions," Proceedings of ACL-88, Buffalo, June, pp. 187–193.
1988. G. Ward and J. Hirschberg, "The Pragmatics of Tautology," in Birner, B. et al., eds. *Working Papers in Linguistics*, Department of Linguistics, Northwestern University, Vol. I, May.
1988. J. Hirschberg, B. Ballard, and D. Hindle, "Natural Language Processing," *AT&T Bell Laboratories Technical Journal: Artificial Intelligence* 67-1, January/February.
1987. J. Hirschberg, D. Litman, J. Pierrehumbert, and G. Ward, "Intonation and the Intentional Structure of Discourse," Proceedings of IJCAI-87, Milan, August.
1987. J. Hirschberg and D. Litman, "Now Let's Talk about *Now*," Proceedings of ACL-87, Stanford, July.

1986. J. Hirschberg and J. Pierrehumbert, "The Intonational Structuring of Discourse," Proceedings of ACL-86, New York, pp. 136–144.
1985. G. Ward and J. Hirschberg, "Implicating Uncertainty: The Pragmatics of Fall-Rise Intonation," *Language*, 64-1:747–776.
1985. J. Hirschberg and G. Ward, "Fall-Rise Intonation and the Place of Intonational 'Meaning' in Linguistic Theory," Proceedings of the Eleventh Annual Meeting of the Berkeley Linguistics Society, February.
1984. J. Hirschberg, "Anticipating False Implicatures: Cooperative Responses in Question-Answer Systems," Proceedings of the First International Workshop on Expert Database Systems, ed. L. Kerschberg, Kiawah Island, S.C., October, pp. 456–66.
1984. J. Hirschberg, "Toward a Redefinition of Yes/No Questions," Proceedings of COLING-84, Stanford, July.
1984. J. Hirschberg, "Scalar Implicature and Indirect Responses to Yes/No Questions," *Proceedings of CSCSI-84*, London, Ontario, May (a longer version appears as University of Pennsylvania Technical Report MS-CIS-84-9, April).
1984. J. Hirschberg and G. Ward, "A Semantico-Pragmatic Analysis of Fall-Rise Intonation," Chicago Linguistic Society, *Papers from the Twentieth Regional Meeting*, April.
1984. J. Hirschberg and G. Ward, "In from the Periphery: Fall-Rise Intonation and the Intonational Autonomy Hypothesis," *Penn Review of Linguistics*, February.
1982. M. Pollack, J. Hirschberg, and B. Webber, "User Participation in the Reasoning Processes of Expert Systems," Proceedings of AAAI-82, Pittsburgh, pp. 358–361. (A longer version appears as University of Pennsylvania Technical Report MS CIS-82-9, June).
1982. O. P. Buneman, J. Hirschberg and D. Root, "Exploiting the Type Systems of High Level Languages for Database Applications," Proceedings of the British National Conference on Databases, July.

Also publications and papers in history.

Book Chapters and Edited Volumes

2010. "Deceptive Speech: Clues from Spoken Language," in *New Trends in Speech Based Interactive Systems*, ed. K. Jokinen and F. Chen, Springer-Verlag, (forthcoming in July).
2005. "Speech Technology – Output: Prosody in TTS", *Encyclopedia of Language and Linguistics*, 2nd edition.
2003. "Pragmatics and Intonation," *Handbook of Pragmatics*, ed. L. Horn and G. Ward, Blackwell.
- To appear. J. Hirschberg, "The Role of Intonation in Spoken Dialogue Systems", in *Automated Spoken Dialogue Systems*, ed. S. Luperfoy. MIT Press.
2001. J. Hirschberg, "Training Accent and Phrasing Assignment on Large Corpora for Text-to-Speech," in *Data-Driven Techniques in Speech Synthesis*, ed. R. Damer. Kluwer.
1999. M. Swerts and J. Hirschberg, editors, *Language and Speech: Special Double Issue on Prosody and Conversation*, 41(3-4).
1996. J. van Santen, R. W. Sproat, J. Olive, and J. Hirschberg (Eds.). *Progress in speech synthesis*. Springer Verlag, New York.
1990. J. Pierrehumbert and J. Hirschberg, "The Meaning of Intonational Contours in the Interpretation of Discourse," in *Intentions and Plans in Communication and Discourse*, P. Cohen, J. Morgan, and M. Pollack, eds., MIT Press, pp. 271–311.

Invited Talks, Panels, Workshops, and Tutorials

2011. "Prosodic Dimensions of Entrainment in Dialogue," Experimental and Theoretical Approaches to Prosody 2, Montreal, September.
2011. "Speaking More Like You: Entrainment in Conversational Speech," ISCA Medal for Scientific Achievement, Florence, August.
2011. "Identifying Deception from Speech," Columbia Linguistics Society, February 25.
2011. "Entrainment to the Other in Conversational Speech," Center for Language and Speech Processing, Johns Hopkins University, February 22.
2010. "Deception Detection from Speech: Automatic Methods vs. Human Judges," Computer Science Seminar Series, University of Texas at Dallas, December 3.
2010. "WordsEye: Creating 3D Scenes from Natural Language Text," LTI Colloquium, Carnegie Mellon University, November 12
2010. "Prosody and Computational Linguistics," Radcliffe Exploratory Seminar on Prosody and Dialog in Language and Music, Radcliffe Institute for Advanced Study, November 6.
2010. "How Do We Know When to Speak? Acoustic, Prosodic, and Lexico-Syntactic Correlates of Turn Management in Spoken Dialogue Systems," TABU, June 4. 2010. "Knowing When to Speak: Turning Management in Spoken Dialogue Systems," Columbia Linguistics Society, March 26.
2010. "Deceptive Speech: Automatic Detection Methods vs. Human Judges," University of Pennsylvania, IRCS, Feb. 5.
2009. "Identifying Deception from Speech," User Interface Technologies Seminar Series, Watson Research Center, IBM Yorktown Heights, November 17.
2009. "Modeling Turn-Taking Behavior in Spoken Dialogue Systems," Future Knowledge Speakers Series, Center for Digital Humanities, University of South Carolina, November 5.
2009. "Detecting Deception from Speech: Humans vs. Machines," Linguistics Program, University of South Carolina, November 6.
2009. "Automatic Recognition of Emotion in Speech," AVIOS NY/NJ/CT Local Chapter Meeting, September 17.
2009. "Recognizing Speaker State: Emotion, Charisma, Deception," SpeechTEK 2009, New York, August 24.
2009. "Turn-Taking vs. Backchanneling in Spoken Dialogue Systems," Invited talk, DiaHolmia 2009, Stockholm, 24 June.
2009. "Recognizing and Conveying Emotion in Speech," Guest Professor Lecture, KTH, 12 May.
2009. "Taking Turns and then Giving Them Up: Turn-taking Behavior in the Columbia Games Corpus," KTH CSC/TMH Seminar Series, 20 March 2009.
2009. "Acoustic, Prosodic, and Lexical Cues to Deception in Speech," The Chinese University of Hong Kong, 11 March 2009.
2009. "Entrainment to Others in Conversational Speech," invited talk, Tilburg University, TiCC Colloquium, 14 January 2009.
2008. "Adapting to the Other: Dimensions of Entrainment in Conversational Speech," invited talk, Swedish Language Technology Conference (SLTC-08), KTH, 21 November 2008.

2008. "Deception Detection from Speech: People vs. Machines," Gothenburg University, Institutionen för lingvistik seminar series, 11 November 2008.
2008. "The Meaning of Intonational Contours: Proposals and Experiments," Lund University, Guest Lecture in "General Linguistics: Pragmatics – Context-dependent Meaning," 10 October 2008.
2008. "Detecting Deception in Speech: Human vs. Machine Performance," KTH CSC/TMH Seminar Series, 12 September.
2008. "A Question of Questions: Prosodic Cues to Question Form and Function," Constraints in Discourse Workshop, 1 August.
2008. "Speaking More Like You: Lexical, Acoustic/Prosodic, and Discourse Entrainment in Spoken Dialogue Systems," SIGdial 2008, 20 June, Columbus.
2008. "Spoken Cues to Deception," LREC 2008, Marrakech, 29 May.
2008. "Spoken Cues to Deception," MIT Artificial Intelligence Seminar, Cambridge, 8 April.
2007. "Context and Prosody in the Interpretation of Cue Phrases in Dialogue," KTH, 22 November.
2007. "Charisma in English and Arabic Political Speech," Distinguished Lecture Series, Stony Brook University, 9 November.
2007. "Detecting Deceptive Speech," Johns Hopkins University Center for Language and Speech Processing Spring Seminar Series, 2 October.
2007. "Deception in Speech," Tilburg University, 24 August.
2007. "Perceptions of Charisma from Spoken Language in Standard American English and Palestinian Arabic," SRI Star Lab Colloquium, 26 July.
2007. "The Form and Function of Cue Phrases in Spoken Dialogue," Workshop on Conversational Games and Strategic Inference, LSA Summer Institute, Stanford, July 11.
2007. "Spoken Dialogue Systems," LSA Summer Institute, Stanford, 6-27 July.
2007. "Credibility Assessment Research Summit (CARS)," sponsored by Counterintelligence Field Activity (CIFA) and the Technical Support Working Group (TSWG), May 22-24, organized by Frank Horvath, Defense Academy for Credibility Assessment (DACA).
2007. "Recognizing and Conveying Speaker State," Lockheed Martin, March 26.
2007. "Detecting Deception from Speech: Acoustic/Prosodic and Lexical Cues," Distinguished Seminar Series 2006-07, Computer Science and Engineering, Lehigh University, March 1.
2006. "Charisma Across Cultures: Acoustic/Prosodic and Lexico-Syntactic Correlates of Charismatic Speech," Collaborative Research Center Plenary Lecture, Stuttgart, November 24.
2006. "Recognizing and Conveying Speaker State Prosodically," Prosody 2006, May 2.
2005. "Recognizing a Speaker's Emotional State," ETS, October 7.
2005. "Charismatic Speech: Acoustic, Prosodic and Lexical Cues in English," Research Challenges in Speech Technology," KTH, Stockholm, October 13.
2005. "From 'If people aren't happy here, they should find some place where they **are** happy' to 'What problem? We have 6 women in our department already': Industry to Academe," WOWINC: Work Opportunities for Women in Computing, NYU, September 23.

2005. Invited participant, "Behavioral Aspects of Security Workshop", NSF, June 26-28, Mark Frank, SUNY Buffalo, organizer.
2005. "Recognizing a Speaker's Emotional State," SUNY Buffalo, Center for Cognitive Science, April 6, 2005.
2005. "Recognizing 'Emotional' Speech," Karlsruhe University, February 14.
2004. "Experiments in Recognizing Emotional Speech," CUNY CS Department Colloquium, October 21.
2004. "Intonational Overload: Uses of the H* !H* L- L% Contour in Read and Spontaneous Speech," Laboratory Phonology 9, June 26, 2004.
2004. "Distinguishing Deceptive from Non-Deceptive Speech: Acoustic, Prosodic, and Lexical Cues," Workshop on Detecting Deception in Language and Cultural Context, University of Maryland Center for Advanced Study of Language, June 17.
2003. Symposium on Intonation and Processing ICPHS 2003, Barcelona.
2003. "Acoustic Cues to Emotional Speech," PROPOR 2003, Faro, Portugal, 26-7 June.
2003. "Experiments in Emotional Speech," ISCA & IEEE Workshop on Spontaneous Speech Recognition, Tokyo, 15 April.
2003. "Intonational Variation in Spoken Dialogue Systems," Wilem Mathesius Courses, Charles University, Prague, March 18-21.
2003. "Browsing and Searching Audio Data: SCANMail," University of Pittsburgh, 24 January.
2002. "Seeing What is Said: New Methods for Extracting Information from Speech," Computer Science Seminar, Institute for Applied Mathematics and Systems, Universidad Autonoma de Mexico, December 6.
2002. "Navigating Audio Like Text: Browsing and Searching Voicemail Messages in SCANMail," Fall 2002 distinguished Lecture Series, Department of Computer Science & Institute for Advanced Computer Studies, University of Maryland, 2 December.
2002. "SCANMail: Audio Browsing and Retrieval for Voicemail," IBM Multimedia Seminar, June 19.
2002. "The Pragmatics of Intonational Meaning," Speech Prosody 2002, Aix-en-Provence, 12 April.
2001. "Audio Browsing and Search in the Voicemail Domain," NLPRS-2001, Tokyo.
2001. "Meanings of Intonational Variation", Stonybrook University, November 5.
2001. "Intonational Variation in Spoken Dialogue Systems: Generation and Understanding," Wilem Mathesius Courses, Charles University, Prague, March.
2000. "Intonational Variation in Spoken Dialogue Systems: Generation and Understanding", 'Bullet Course' presented at the Kungl Tekniska Högskolan (KTH), Stockholm, September 12-14.
1999. "Communication and Prosody: Functional Aspects of Prosody," ESCA Workshop on Dialogue and Prosody, Eindhoven, September.
1999. "When Good Recognizers Go Bad: Identifying Prosodic Cues to Recognition Errors," Johns Hopkins Center for Language and Speech Processing Workshop Guest Lecture Series, July.
1999. "Intonation and Discourse Structure: Analysis, Generation, and Understanding", Wilem Mathesius Courses, Charles University, Prague, March.

1998. "Prosody and Discourse Structure," Third Discourse Tagging Workshop, Chiba University, May 18.
1997. "Discourse and Dialogue Prosody: Theories of Intonational Meaning Above the Utterance Level," ESCA Tutorial and Research Workshop on Intonation: Theory, Models and Applications, Athens, September.
1996. "Intonation and Discourse Structure: The Boston Directions Corpus", Ohio State University, November 22.
1996. "To Speak....or not to Speak: The Role of Spoken Language in Multimodal Interfaces," KONVENS 96, Bielefeld, October.
1996. "Prosody in Spoken Dialogue," Course given at the Fourth European Summer School on Language and Speech Communication: Dialogue Systems, Technical University of Budapest, July.
1996. "Intonational Variation and Intonational Meaning'," Wilem Mathesius Courses, Charles University, Prague, April.
1996. "Intonation and Discourse Structure: The Pragmatics of Prosodic Variation," Interfaces of Grammar: Theoretical and Computational Aspects, Universitaet Stuttgart/Universitaet Tuebingen, October.
1996. "Learning from Human Performance: Corpus-Based Intonational Assignment in Text-to-Speech", Microsoft Research, March 11.
1995. "Prosodic and Other Acoustic Cues to Speaking Style in Spontaneous and Read Speech," Panel on Speaking Styles, XIIIth International Congress of Phonetic Sciences, Stockholm, August.
1995. Discourse: Linguistic, Computational, and Philosophical Perspectives, Center for Philosophy of Science, University of Pittsburgh, March 24-26 (invited participant).
1995. "Discourse Prosody", Tutorial Workshop on Discourse and Dialogue Prosody, Universitaet Stuttgart, February 13.
1994. "Intonation and Discourse Structure: New Evidence from a Task-Oriented Domain," Workshop on Prosody, Third International Conference on Spoken Language Processing, Yokohama, September.
1993. "Prosodic Variation for Text-to-Speech Synthesis," Special Session on Text-to-Speech, Acoustical Society of America, October 7.
1993. "Meaning beyond Words: Intonational Frontiers in Natural Language Processing," (plenary talk), IJCAI-93, Chambery, France, September 1.
1993. "Studies of Intonation and Discourse," (tutorial) ESCA Workshop on Prosody, Lund University, September.
1993. "Pragmatics and Intonation," (course) LSA Summer Institute, Ohio State University, June/July.
1993. ToBI Workshop on Prosodically Transcribed Data and Transcription Tools for Linguistics Research, Columbus OH, June (invited participant).
1993. "Linguistic Cues to Discourse Segmentation", NATO Advanced Research Workshop on Burning Issues in Discourse, Maratea, Italy, April.
1993. "Structuring Discourse Intonationally", CMU, March 30.
1993. "Intonation and Discourse Structure", University of Rochester, March 17.
1992. "Modeling of Contextual Information for Text-to-Speech Systems," Workshop on Prosody and Discourse, Second International Conference on Spoken Language Processing, Banff, October 13.

1992. "Intonation in Natural Language Understanding and Generation," (tutorial) Second Pacific Rim International Conference on AI, Seoul, September.
1992. Second Prosodic Transcription Workshop, NYNEX, May (invited participant).
1992. "Intonational Correlates of Discourse Structure," University of Arizona, Tucson, April 17.
1992. "Predicting Intonational Boundaries in Spontaneous Speech," Hebrew University, Jerusalem, March 10.
1992. "Intonational Correlates of Local and Global Discourse Structure," NY Area Seminar on Computational Linguistics, CUNY, January.
1991. "Predicting Intonational Boundaries from Text," CUNY, December.
1991. "Computational Approaches to Intonation and Discourse," (tutorial) The Third European Summer School in Language, Logic and Information, Universitaet des Saarlandes, Saarbruecken, August 12-23.
1991. MIT Prosodic Transcription Workshop, August (invited participant).
1991. NSF Conference on the Grammatical Foundations of Prosody and Discourse, Santa Cruz, June/July.
1991. "Intonation in Spoken Language Systems," (tutorial) 29th Annual Meeting of the Association for Computational Linguistics, June 18.
1991. (invited participant) University of Illinois Workshop on Computational Linguistics and Linguistic Theory, Champagne-Urbana, June 13-15.
1991. "Predicting Intonational Boundaries Automatically from Text," Bell Communications Research, Morristown NJ, April 17.
1991. "Intonational Boundaries and Syntactic Structure", Workshop on Current Issues in Natural Language Processing, Center for Cognitive Science, University of Texas, Austin, February 15.
1990. "Scalar Implicature," Princeton Cognitive Science Group, 22 May.
1990. "Assigning Pitch Accent in Synthetic Speech," MIT, May 2.
1989. "Correlating Pitch Range Variation and Topic Structure in Discourse," AAAI Symposium on Spoken Language Systems, Stanford, March 30.
1989. "Interpreting Cue Phrases Intonationally," CMU/University of Pittsburgh Computational Linguistics Seminar, January (with D. Litman).
1988. "Intonational Meaning and Speech Synthesis," Columbia University Cognitive Seminar, April 25.
1988. "Controlling Intonational Meaning in Synthetic Speech: Varying Stress, Pitch, and Timing to Convey Discourse Information," Columbia University Department of Computer Science AI Day, April 15.
1988. "Generating Appropriate Intonational Features in Synthetic Speech," Bell Communications Research CHI Seminar, March 31.
1988. "Intonational Features and Discourse Interpretation", US/Japan Workshop on Natural-Language Processing and Computer Software (NSF), January.
1987. "Structuring Discourse Intonationally," AI Colloquium Series, New York University, October.
1987. "The Meaning of Intonational Contours in the Interpretation of Discourse" (with J. Pierrehumbert), Symposium on Intentions and Plans in Communication and Discourse, Monterey, March.

1987. Panel on Current Issues in Discourse and Pragmatics, TINLAP-87, January.
1987. "Intonational Meaning in the Interpretation of Discourse", ATR Workshop on Natural Language Dialogue Interpretation, Osaka, November.
1986. "Intonation and Discourse," AI Seminar, Bolt, Baranek, and Newman, Inc., July (with J. Pierrehumbert).
1986. "Discourse and intonational meaning," University of Delaware, March.
1986. "Intonational structuring of discourse," (with J. Pierrehumbert), Sloan Seminar in Cognitive Science, University of Pennsylvania, February.
1984. "The Pragmatics of Fall-Rise Intonation," (with G. Ward) Sloan Seminar in Cognitive Science, University of Pennsylvania, October.

Conference Presentations

2008. "The Effect of Semantic Modality on the Assessment of Speaker Certainty," LSA Annual Meeting, Chicago, January (with G. Ward, Agus Gravano, Elisa Sneed, Stefan Benus).
1992. "A Pragmatic Account of the H* H H% Contour in English," Linguistic Society of America Annual Meeting, January (with G. Ward).
1988. "'NP does too' vs. 'so does NP'," Linguistic Society of America Annual Meeting, December (with G. Ward).
1988. "On the Role of Accent in the Interpretation of Bound Anaphora," Midwestern Modern Language Association, November (with G. Ward).
1987. "Accent and Bound Anaphora," Linguistic Society of America Annual Meeting, December (with G. Ward).
1987. "Pragmatic Wars and Tautological Battles," Linguistic Society of America Annual Meeting, December (with G. Ward).
1987. "On the Phonetic Determinants of Incredulity and Uncertainty" International Pragmatics Conference, Antwerp, August (with G. Ward).
1986. "Reconciling incredulity with uncertainty: a unified account of the L*+H L L% intonational contour," Linguistic Society of America Annual Meeting, December (with G. Ward).