Kristine M. Yu

CONTACT Assistant Professor

INFORMATION Department of Linguistics Phone: +1-413-545-0885 University of Massachusetts Amherst Fax: +1-413-545-2792

Integrative Learning Center E-mail: krisyu@linguist.umass.edu

650 North Pleasant Street WWW: www.krisyu.org

Amherst, MA 01003-1100, USA

RESEARCH INTERESTS **Prosody, from the speech signal on up:** tone, intonation, phonetics, phonology, mathematical

modeling of speech, language learning and variation, human language processing

ACADEMIC APPOINTMENTS

Assistant Professor

September 2011 – present

Department of Linguistics, University of Massachusetts

- Affiliations:
 - o Five Colleges Prosody Group, co-director
 - o UMass Phonetics Lab
 - o UMass Computational Phonology Lab, co-director
 - UMass Initiative for Cognitive Science
 - o UMass Computational Social Science Initiative, faculty associate

Postdoctoral Researcher

September 2011 – June 2012

Department of Linguistics, University of Maryland College Park

• Supervisor: Bill Idsardi

EDUCATION

University of California Los Angeles, Los Angeles, CA

Ph.D., Linguistics, September 2011

- Thesis Topic: The learnability of tones from the speech signal
- Advisers: Professor Edward Stabler, Professor Megha Sundara

M.A., Linguistics, December 2008

- Thesis Topic: The prosody of second position clitics and focus in Zagreb Croatian
- Adviser: Professor Sun-Ah Jun

Otto-von-Guericke-Universität Magdeburg, Magdeburg, Germany

Fulbright scholar, Abteilung Biophysik, September 2004 – August 2005

• Synchronization of glycolytic oscillations in yeast cell populations

Stanford University, Stanford, CA

B.S. Chemistry, June 2004

- With distinction
- · Minor in physics

University of Southern California, Los Angeles, CA

August 2000 - May 2001

- Trustee Scholar
- Resident Honors Program

Honors

University of Massachusetts Institute for Social Science Research

• Social Science Research Scholar, 2014 – 2015

National Science Foundation

• Graduate Research Fellowship, 2008 – 2011

Ohio State University Research Foundation

• Machine Learning Summer School/Workshop 2009 Travel Grant

University of California Los Angeles

- Department of Linguistics Ladefoged Scholarship Award, 2010
- Graduate Research Mentorship Program Fellowship, 2007 2008
- Summer Graduate Research Mentorship Program Fellowhip, 2007, 2008
- Linguistic Society of America Linguistic Institute Fellowship, 2007
- Humanities Dean's Fellowship, 2006 2007

Institute of International Education Fulbright Program

- Fulbright Scholarship, Germany, 2004 2005
- Fulbright Enterprise Scholarship, Germany (4/107 grantees selected), 2004 2005

Deutscher Akademischer Austausch Dienst

• DAAD study scholarship, 2004 (Declined)

Barry Goldwater Scholarship and Excellence in Education Program

• Barry Goldwater scholarship, 2003

GRANTS

Principle Investigator, Andrew Mellon Foundation / Center for Teaching & Faculty Development at the University of Massachusetts Amherst, "Five Colleges Prosody Community", \$10,000, 2013 – 2014.

- Mentoring network small group lunches
- Winter prosody bootcamp (regional): January 17-18, 2014
- UMass Tone Workshop (international): June 2-3, 2014

Consultant, "Effects of Syntactic Constituency on Phonology and Phonetics of Tone" (PI: Lisa Selkirk), NSF, Behavioral and Cognitive Sciences, Award 1147083, \$361,283.00, July 1, 2012 – December 31, 2015.

MANUSCRIPTS IN PREPARATION

- [1] Yu, Kristine M. (in prep) Discovering dimensions of tonal contrast.
- [2] Yu, Kristine M and Matthew Frelinger. (in prep) Prosodic phrasing in Samoan narratives.
- [3] Yu, Kristine M and Deniz Ozyildiz. (in prep) The emergence of absolutive tonal case marking in Samoan.
- [4] Yu, Kristine M. (in prep) Temporal resolution in Cantonese tone perception. *Journal of Phonetics*.

SUBMITTED MANUSCRIPTS

- [5] Yu, Kristine M. (submitted) Tonal marking of absolutive case in Samoan. *Natural Language & Linguistic Theory*.
- [6] Yu, Kristine M. (submitted) Advantages of constituency: computational perspectives on Samoan word prosody. *Phonology*.
- [7] Yu, Kristine M. and Edward Stabler. (submitted) (In)variability in Samoan prosody and consequences for syntactic parsing. *Laboratory Phonology*.
- [8] Yu, Kristine M., ud Dowla Khan, Sameer, and Megha Sundara. (under revision) Intonational phonology in Bengali and English infant-directed speech. *Laboratory Phonology*.

REFEREED JOURNAL PUBLICATIONS

Linguistics

- [1] **Yu, Kristine M.** and Hiu Wai Lam. (2014). The role of creaky voice in Cantonese tone perception. *The Journal of the Acoustical Society of America*, 136(3), 1320-1333. [web, pdf, supplementary materials]
- [2] Yu, Kristine M. (2014). The experimental state of mind in elicitation: illustrations from tonal fieldwork. *Language Documentation & Conservation*, 8, 738–777. [web, pdf, supplementary materials]
- [3] Zuraw, Kie, **Yu, Kristine M.**, and Robyn Orfitelli. (2014). The word-level prosody of Samoan. *Phonology*, 31(2), 271–327. [web, pdf]

Biochemistry and genetics, prior to change of field to linguistics

- [4] J. Liu, S. Louie, W. Hsu, **K. M. Yu**, H. B. Nicholas, and G. L. Rosenquist. (2008). Tyrosine sulfation is prevalent in human chemokine receptors important in lung disease. *American Journal of Respiratory Cell and Molecular Biology*, 38: 738–743. doi:10.1165/rcmb.2007-0118OC
- [5] Y. R. Thorstenson, A. Roxas, R. Kroiss, M. A. Jenkins, K. M. Yu, T. Bachrich, D. Muhr, T. L. Wayne, G. Chu, R. W. Davis, T. M. U. Wagner, and P. J. Oefner. (2003). Contributions of *ATM* mutations to familial breast and ovarian cancer. *Cancer Research*, 63: 3325–3333. http://cancerres.aacrjournals.org/cgi/content/abstract/63/12/3325
- [6] A. S. Torralba, K. Yu, P. Shen, P. J. Oefner, and J. Ross. (2003). Experimental test of a method for determining causal connectivities of species in reactions. *Proc. Natl. Acad. Sci. USA*, 100: 1494–1498. doi:10.1073/pnas.262790699
- [7] **K. M. Yu**, J. Liu, R. Moy, H. C. Lin, H. B. Nicholas, and G. L Rosenquist. (2002). Prediction of tyrosine sulfation in seven-transmembrane peptide receptors. *Endocrine*, 19: 333–337. doi:10.1385/ENDO:19:3:333
- [8] S. Šale, R. Sung, P. Shen, K. Yu, Y. Wang, G. Duran, J. Kim, T. Fojo, P. J. Oefner, and B. I. Sikic. (2002). Conservation of the class I β-tubulin gene in human populations and lack of mutations in lung cancers and paclitaxel-resistant ovarian cancers. *Molecular Cancer Therapeutics*, 1: 215–225. http://mct.aacrjournals.org/content/1/3/215.short

BOOK CHAPTERS

[1] Kuo, Grace C.-H. and **Kristine M. Yu**. (2012). Taiwan Mandarin quantifiers. In *Handbook of Quantifiers in Natural Language*, ed. Edward Keenan and Denis Paperno, pp. 647 – 698. doi:10.1007/978-94-007-2681-9_12 [pdf]

REFEREED CONFERENCE PROCEEDINGS

- [1] **Yu, Kristine M.**, Khan, Sameer ud Dowla, and Sundara, Megha. (2014). Intonational phonology in Bengali and English infant-directed speech. Speech Prosody 2014. 1130-1133. [pdf]
- [2] Yu, Kristine M. (2011).¹ The sound of ergativity: morphosyntax-prosody mapping in Samoan. In: Suzi Lima, Kevin Mullin, Brian Smith, eds., *Proceedings of the 39th Annual Meeting of the North East Linguistic Society*, Vol. 2, Graduate Linguistic Student Association, Amherst, MA, pps. 825 838. [pdf]
- [3] Yu, Kristine M. (2011). Temporal resolution in Cantonese tone perception. In: *Proceedings of The Psycholinguistic Representation of Tone*.

¹Refereed abstract only.

- [4] **Yu, Kristine M.** and Hiu Wai Lam. (2011). The role of creaky voice in Cantonese tonal perception. In: *Proceedings of the 17th International Congress of Phonetic Sciences*, 2240 2243. [pdf]
- [5] Shue, Yen-Liang, Keating, Patricia, Vicenik, Chad, and **Kristine Yu**. (2011). VoiceSauce: a program for voice analysis. In: *Proceedings of the 17th International Congress of Phonetic Sciences* 1846 1849. [pdf]
- [6] Yu, Kristine M. Laryngealization and features for Chinese tonal recognition. (2010). In: *Proceedings of Interspeech* 2010, 1529 1532. [web, pdf]
- [7] Yu, Kristine M. (2009). The prosody of second position clitics and focus in Zagreb Croatian. In: Maria Babyonyshev, Daria Kavitskaya, Jodi Reich, eds., *Formal Approaches to Slavic Linguistics #17: The Yale Meeting 2008.*, Michigan Slavic Publications, Ann Arbor, MI, pps. 253 270. [pdf]

TECHNICAL REPORTS

[1] Yu, Kristine M. (2010). Representational maps from the speech signal to phonological categories: a case study with lexical tones. In: Thomas Graf, ed., UCLA Working Papers in Linguistics, Papers in Mathematical Linguistics 1, Volume 15, Article 5: 1 – 30. [pdf]

POPULAR ARTICLES

[1] **Kristine M. Yu**, Sameer ud Dowla Khan, Alejandrina Cristia, Huei-Mei Liu, Megha Sundara (2011). The joint purpose of pitch patterns in "motherese": drawing attention and conveying language structure. ASA Lay Language Papers 162nd Acoustical Society of America Meeting. On-line at: http://acoustics.org/pressroom/httpdocs/162nd/Yu_5aSCa3.html

INVITED TALKS

- [1] Yu, Kristine. (2016). Commentary on Elfner (2016), Strong Start and phonological phrasing in Irish. Workshop on the Effects of Constituency on Sentence Phonology. University of Massachusetts Amherst, July 29, 2016.
- [2] Yu, Kristine. (2016). TBA. Workshop on the Effects of Constituency on Sentence Phonology. University of Massachusetts Amherst, July 30, 2016.
- [3] Yu, Kristine. (2016). TBA. Data Science Tea, Center for Data Science, University of Massachusetts Amherst, April 26, 2016.
- [4] Yu, Kristine. (2015). Linguistic tone and the input to computational models of sentence comprehension. Computational Social Science Initiative Lunch Seminar, University of Massachusetts Amherst, November 13, 2015.
- [5] Yu, Kristine. (2015). Tone in parsing. Workshop on Minimalist Parsing, Massachusetts Institute of Technology. October 9–11, 2015.
- [6] Yu, Kristine M. (2015). Grammatical tones in Samoan. University of Auckland, Applied Language Studies and Linguistics, School of Cultures, Languages and Linguistics, Pacific Studies. July 2015.
- [7] Yu, Kristine M. (2015). Tonal marking of absolutive case in Samoan. Massachusetts Institute of Technology Linguistics Department Colloquium. February 2015.
- [8] Yu, Kristine M. (2014). Tonal marking of absolutive case in Samoan. University of California Santa Cruz Phlunch. October 2014.
- [9] Yu, Kristine M. (2014). The sound of ergativity: tonal marking of absolutive case in Samoan. McGill University Workshop on Syntax-Prosody Mapping in Verb-Initial Languages. May 2014.
- [10] Yu, Kristine M. (2013). Phonological structure in infant directed speech. Stony Brook University Linguistics Colloquium. September 2013.

- [11] Yu, Kristine M. (2012). The learnability of tones from the speech signal. New York University Linguistics Colloquium. November 30, 2012.
- [12] Yu, Kristine M. (2012). Samoan morphosyntax-prosody mapping. University of Maryland Linguistics Colloquium. February 3, 2012.
- [13] Yu, Kristine M. (2011). The learnability of tones from the speech signal. Macquarie University Linguistics Colloquium. November 30, 2011.
- [14] Yu, Kristine M. (2011). Speech rhythm and acquisition. Macquarie University Child Language Lab. November 29, 2011.
- [15] Yu, Kristine M. (2011). The learnability of tones from the speech signal. Harvard University Linguistics Colloquium. November 15, 2011.
- [16] Yu, Kristine M. (2011). The learnability of tones from the speech signal. University of California San Diego Linguistics Colloquium. November 7, 2011.
- [17] Yu, Kristine M. (2011) The learnability of language-specific f0-based rhythmic patterns. 162nd meeting of the Acoustical Society of America. November 4, 2011.
- [18] Yu, Kristine M. (2011). The learnability of tones from the speech signal. Northeast Computational Phonology Circle. Yale University. October 15, 2011.
- [19] Yu, Kristine M. (2011). The learnability of tones from the speech signal. University of Delaware Linguistics and Cognitive Science Colloquium. October 7, 2011.
- [20] Yu, Kristine M. (2011). Studying language learning from the speech signal. Institute for Computational and Experimental Study of Language Launch, University of Massachusetts, Amherst, April 1, 2011.
- [21] Yu, Kristine M. (2011). How to study how tones are learned. Workshop on how to study a tone language: from the first elicitation to the latest software. University of California, Berkeley, February 21, 2011.
- [22] Yu, Kristine M. (2011). Inductive biases for learning phonological categories. University of Massachusetts, Amherst, February 15, 2011.
- [23] Yu, Kristine M. (2011). Discovering the intonational phonology of Samoan: a fieldwork tutorial. University of Massachusetts, Amherst, February 14, 2011.
- [24] Yu, Kristine M. (2009). The sound of ergativity: morphosyntax-prosody mapping in Samoan. University of Chicago Workshop on Language, Cognition, and Computation, June 5, 2009.

REFEREED
CONFERENCE AND
WORKSHOP
PRESENTATIONS

- [1] Kimper, Wendell, **Yu, Kristine**, Bennett, William, and Christopher Green. (2016). Acoustic correlates of harmonic classes in Somali. 47th Annual Conference on African Linguistics, University of California Berkeley, March 24, 2016
- [2] **Yu, Kristine** and Deniz Ozyildiz. (2016). Emergence of tonal absolutive case marking in Samoan. The 42nd Annual Meeting of the Berkeley Linguistics Society, February 5, 2016.
- [3] Yu, Kristine. (2015). Tonal marking of absolutive case in Samoan. American International Morphology Meeting 3, University of Massachusetts Amherst, October 3, 2015.
- [4] Yu, Kristine M. (2015). Tonal marking of absolutive case in Samoan. Morphosyntactic Triggers of Tone: New Data and Theories, University of Leipzig, Germany, June 12, 2015.

- [5] Yu, Kristine M. and Edward Stabler. (2015). A parsing model for crowding, speech rate and syntax of tone. Experimental and Theoretical Approaches to Prosody 3, University of Illinois Urbana-Champaign, May 29, 2015.
- [6] Yu, Kristine M. (2015). Tonal marking of absolutive case in Samoan. Austronesian Formal Linguistics Association 22, McGill University, Montreal, Canada, May 23, 2015.
- [7] **Yu, Kristine M.**, Sameer ud Dowla Khan and Megha Sundara. (2014). Intonational phonology in Bengali and English infant-directed speech. Speech Prosody 7, Dublin, 2014.
- [8] Yu, Kristine M., and Hiu Wai Lam. (2011). The role of creaky voice in Cantonese tonal perception. International Congress of Phonetic Sciences XVII, Hong Kong, 2011.
- [9] Yu, Kristine M. (2011). Representations for learning phonological categories. Linguistics Society of America, Pittsburgh, PA, January 7, 2011.
- [10] Yu, Kristine M. (2011). Coarse representations for phonemic categories. North Eastern Linguistic Society 41, Philadelphia, PA, October 23, 2010.
- [11] Yu, Kristine M. (2009). The sound of ergativity: morphosyntax-prosody mapping in Samoan. Austronesian Formal Linguistics Association XVI, UC Santa Cruz, CA.
- [12] Yu, Kristine M. (2009). The sound of ergativity: morphosyntax-prosody mapping in Samoan. Linguistics Society of America, San Francisco, CA.
- [13] Yu, Kristine M. (2008). The sound of ergativity: morphosyntax-prosody mapping in Samoan. North East Linguistic Society 39, Ithaca, NY.
- [14] Zuraw, Kie, Orfitelli, Robyn, and **Kristine Yu**. (2008). Word-level prosody of Samoan. Austronesian Formal Linguistics Association XV, Sydney, Australia.
- [15] Yu, Kristine. (2008). The prosody of second position clitics and focus in Zagreb Croatian. Formal Approaches to Slavic Linguistics 17, New Haven, CT, May 11, 2011.

[1] Yu, Kristine. (2016). The emergence of an inflectional edge tone morpheme in Samoan. The 15th Conference on Laboratory Phonology. Cornell University, Ithaca, NY.

- [2] Khan, Sameer ud Dowla and **Kristine M. Yu**. (2014). Intonational phonology in infant-directed speech. Linguistics Society of America, Minneapolis, MN.
- [3] Silverstein, Kate and **Kristine M. Yu**. (2013). Investigating tonal spaces using an extension of VoiceSauce voice analysis software. Acoustical Society of America, San Francisco, CA, December 2013.
- [4] **Yu, Kristine M.**, Khan, Sameer ud Dowla and Megha Sundara. (2011). A cross-linguistic investigation of information structure in infant-directed speech. Experimental and Theoretical Approaches to Prosody, September 23, 2011.
- [5] Khan, Sameer, **Yu, Kristine M.**, and Jaime Roemer. (2011). Speech rhythm and f0 patterns in Bengali: implications for prosodic acquisition. Acoustical Society of America, Seattle, WA, May 27, 2011.
- [6] Yu, Kristine M. (2011). Acoustic representations for tonal phonological categories. Acoustical Society of America, Seattle, WA, May 23, 2011.
- [7] Yu, Kristine M. (2010). Laryngealization and features for Chinese tonal recognition. Interspeech 2010, Makuhari, Japan, September 14, 2010.
- [8] Yu, Kristine. (2010). Linear separability and feature selection in the acquisition of tone. LabPhon 12, Albuquerque, NM, July 8, 2010.

REFEREED CONFERENCE POSTERS

- [9] Lam, Hiu Wai and **Kristine M. Yu**. (2010). The role of creaky voice quality in Cantonese tonal perception. Acoustical Society of America, Baltimore, MD, April 23, 2010.
- [10] **Yu, Kristine M.**, Lam, Hiu Wai, and Shing-Yin Li. (2010). An acoustic and electroglottographic study of Cantonese tone. Acoustical Society of America, Baltimore, MD, April 23, 2010.
- [11] Yu, Kristine M. (2010). Linear separability and feature selection in the acquisition of tone. Computational Modelling of Sound Pattern Acquisition, University of Alberta, Feb. 14, 2010.
- [12] Yu, Kristine M. (2009). Contextual tonal variation in level tone languages. Acoustical Society of America, Portland, OR.
- [13] Orfitelli, Robyn and **Kristine Yu**. (2009). The intonational phonology of Samoan. Austronesian Formal Linguistics Association XVI, UC Santa Cruz, CA.
- [14] Yu, Kristine. (2008). The prosody of second position clitic placement and focus in Zagreb Croatian. Acoustics'08, Acoustical Society of America, Paris, France.

STUDENT ADVISING

Doctoral dissertation committees

- Mullin, Kevin (in progress).
- Nazarov, Aleksei (in progress).
- Pizzo, Presley (2015). Investigating properties of phonotactic knowledge through web-based experimentation.

Comprehensive paper committees

- Kusmer, Leland (2016).
- Hauser, Ivy (2015). Dispersion (and lack thereof) in stop inventories
- Conner, Tracy (2014). Questioning Inversion and Truncation as Constraints on Variation in African American English Polar Question Intonation
- Fainleib, Yelena (2014). Evidence for Syllable Weight Sensitivity and Stratum Conditioning in Modern Hebrew Nouns Stress System.
- Nazarov, Aleksei (2013). *Generalization in phonological representations: a learning-based argument for grammars with multiple levels of representation.*
- Fainleib, Yelena (2013). Relative scaling of prosodic boundaries size in sentence production.
- Elsman, Minta (2013). Vowel devoicing and syllable position in Uzbek.
- Moore-Cantwell, Claire (2012). Syntactic probability influences duration.
- Also: Pizzo, Presley; Mullin, Kevin (2012).

TEACHING EXPERIENCE

University of Massachusetts Amherst, Amherst, MA

Instructor

September 2012 – present

- LINGUIST 197LM: Language and Music (Undergraduate)
 - o Spring 2017
- LINGUIST 751: Topics in Phonology (Graduate)
 - o Fall 2015 (Somali field methods.)
- LINGUIST 414: Introduction to Phonetics for Linguistics (Undergraduate)
 Fall 2015, Fall 2016
- LINGUIST 592B: Speech processing (Undergraduate/Graduate)
 - o Spring 2014 (TA: Kate Silverstein)
- LINGUIST 751: Topics in Phonology (Graduate)
 - o Spring 2014 (co-taught with Brian Dillon; Prosodic parsing)

- LINGUIST 716: Topics in Phonetics (Graduate)
 - o Fall 2013 (co-taught with John Kingston; Categories)
- LINGUIST 606: Phonological Theory (Graduate)
 - Spring 2013, Spring 2015, Spring 2017
- LINGUIST 748: Structure of a non Indo-European Language (Graduate)
 - o Spring 2013 (co-taught with Alice Harris; Language: Dzongkha)
- LINGUIST 730: Proseminar Phonological Theory (Graduate)
 - Fall 2012 (*Prosodic theory*)

PROFESSIONAL SERVICE

Conference organization

- Organizer, UMass Tone Workshop (June 2-3, 2014)
 - Principle Investigator, Andrew Mellon Foundation / Center for Teaching & Faculty Development at the University of Massachusetts Amherst, "Five Colleges Prosody Community", \$10,000, 2013 2014.
- Organizing committee, 5th Tonal Aspects of Language (TAL) Symposium, 2015 (May 19-22, 2016)
- Scientific committee, Speech Prosody 2016 (May 31-June 3, 2016)

Editing

- Editorial Board, Journal of the International Phonetic Association, 2016 –
- Co-editor, Special Issue of *Laboratory Phonology* on prosodic variability, 2015 2016

Ad-hoc reviewing

Journals

- PLoS ONE, 2015
- Language and Speech, 2015
- Attention, Perception, and Psychophysics, 2015
- Journal of East Asian Linguistics, 2015
- *Phonology*, 2014 2015
- *Lingua*, 2013 2015
- Journal of the International Phonetic Association, 2013 2014
- Language Documentation & Conservation, 2013
- *Journal of the Acoustical Society of America*, 2011 2013
- Journal of Phonetics, 2011

Grants

• National Science Foundation Linguistics Program, 2014

Conferences

- International Congress of Phonetic Sciences, 2015
- Austronesian Formal Linguistics Association, 2015 –
- Generative Linguistics in the Old World, 2015
- ACL: 2014 Joint Meeting of SIGMORPHON and SIGFSM, 2014
- Exploring the Interfaces 3, 2014
- Tonal Aspects of Language, 2014, 2016
- Tone and Intonation in Europe, 2016
- Annual Meetings on Phonology, 2013 2015
- Linguistic Society of America Annual Meeting, 2012 2014
- West Coast Conference on Formal Linguistics, 2012 2014

PROFESSIONAL MEMBERSHIPS

- Linguistic Society of America (2007 present)
- Acoustical Society of America (2008 present)
- International Speech Communication Association (2008 present)
- Cognitive Science Society (2010 2012)
- Association for Laboratory Phonology (2015 present)

DEPARTMENTAL SERVICE

- Strategic Planning for Undergraduate Education: research sub-committee, 2015
- Search Committee, 2014 2015
- Annual departmental professional development workshop series for graduate students: giving talks and posters, 2014 present
- Library liaison, 2013 present
- Admissions Committee, 2012 2013
- Personnel Committee, 2011 present

OUTREACH

- Talk on tone and intonation at MacDuffie School Linguistics after-school program, February 27, 2014
- Talk on prosody at Williston-Northampton School linguistics high school class, March 26, 2015