CURRICULUM VITAE

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EDUCATION

B.S., Zhejiang University, Hangzhou, China, 1996
M.S., Zhejiang University, Hangzhou, China, 1999
Ph.D., Purdue University, West Lafayette, Indiana, USA, 2002

PROFESSIONAL EXPERIENCE

Professor, Department of Head and Neck Surgery, UCLA School of Medicine, 2017 – Present

Associate Professor, Department of Head and Neck Surgery, UCLA School of Medicine, 2012 – 2017

Affiliate Faculty, Department of Bioengineering, UCLA, 2012 – Present

Assistant Professor, Division of Head and Neck Surgery, UCLA School of Medicine, 2007 – 2012

Assistant Research Scientist, Division of Head and Neck Surgery, School of Medicine, University of California, Los Angeles, 2004 – 2007

Research Associate, Department of Electrical and Computer Engineering, University of Maryland, College Park, 2002-2004

Research Assistant, Ray W. Herrick Laboratories, School of Mechanical Engineering, Purdue University, West Lafayette, Indiana, 1999-2002

PROFESSIONAL ACTIVITIES

2008-2015, Speech Communication Technical Committee, Acoustical Society of America

2011-present, Associate Editor, Journal of the Acoustical Society of America
2012, 2015, Guest Associate Editor, Journal of Speech, Language, and Hearing Research
2013-present, Committee on Standards, Acoustical Society of America (ASACOS)
2016-present, Coordinating Editor for Speech Communication, Journal of the Acoustical Society of America
Ad-hoc reviewer for National Institute of Deafness and Other Communication Disorders (NIH/NIDCD)
Ad-hoc reviewer for Journal of the Acoustical Society of America, Journal of Sound and Vibration, Computer Speech and Language, Journal of Fluids and Structures, American Journal of Speech-Language Therapy, Medical Engineering & Physics, Journal of Speech Language and Hearing Research, Acta Acustica united with Acustica, Current Bioinformatics, IEEE Transactions on Biomedical Engineering, Biomechanics and Modeling in Mechanobiology, Journal of Visualized Experiments, Journal of Biomedical Materials Research Part B: Applied Biomaterials, PLOS ONE, Journal of Biomechanics, Laryngoscope.

HONORS AND SPECIAL AWARDS

Fellow, Acoustical Society of America, elected 2011; citation: "For contributions to the mechanics of vocal fold vibration"
First Place Laryngology/Bronchoesophagology Award, Scientific Poster Competition, 117th Annual Meeting of the Triological Society, 2014
Broyles-Maloney award, American Broncho-Esophagological Association, 2015

RESEARCH GRANTS

Principal Investigator (Multiple PI with Bruce Gerratt and Jody Kreiman), NIH-NIDCD Research Grant 2R01-DC001797 “Toward standardizing perceptual voice quality measures”, 2016-2020.

Consultant, NIH-NIDCD Research Grant 1R03DC014562 “Numerical Investigation of inner anatomical structure and material property of vocal fold on phonation”, 2015-2018. PI: X. Zheng & Q. Xue.

Principal Investigator (Multiple PI with Gerald Berke), NIH-NIDCD Research Grant 2R01-DC009229 “Laryngeal muscular control of voice production and quality”, 2013-2018.

Mentor, VA Career Award 1IK2-BX001944 “Bilayered vocal fold tissue engineering”, 2013-2018. PI: Jennifer Long.

Principal Investigator, NIH-NIDCD Research Grant 1R01-DC011299 “Biomechanical mechanisms of Phonation”, 2011-2017.

Principal Investigator, UCLA Faculty Research Grant, “Biomechanical Basis of Voice Quality”, 2011-2012.

Principal Investigator, UCLA Faculty Research Grant, "Nonlinear Dynamics of Voice Production", 2008-2009.

Principal Investigator (Multiple PI with J. Neubauer), NIH-NIDCD Research Grant 1R01-DC09229 "Sound Sources of Phonation", 2007-2012.

Co-Investigator, NIH-NIDCD Research Grant R01-DC03072 "Medial Surface Dynamics of the Vocal Folds", 2007-2012. PI: D. Berry.

Co-Investigator, NIH-NIDCD Research Grant R01-DC04688 "Direct and Indirect Measurement of Glottal Volume Velocity", 2002-2007. PI: G. Berke.

PUBLICATIONS/BIBLIOGRAPHY

Research Papers (Peer-Reviewed)

1. Jiang, H., Chen, G., **Zhang, Z.**, 1998, "An engine-driven integrated refrigeration cycle," *Cryogenic Engineering*, No. 6, 55-58.

2. **Zhang, Z.**, Feng, Y., Chen, G., 1999, "Performance affecting factors in thermoacoustic refrigerator," *Fluid Machinery*, Vol. 27, No. 1, 58-61.

3. Feng, Y., **Zhang, Z.**, Chen, G., Zheng, W., 1999, "Experimental study on thermoacoustic refrigeration," *Cryogenic Engineering*, No. 4, 33-36.

4. **Zhang, Z.**, Feng, Y., Chen, G., 1999, "Numerical analysis of thermoacoustic refrigeration," *Cryogenic Engineering*, No.5, 50-55.

5. **Zhang, Z.**, Mongeau, L., Frankel, S.H., 2002, "Broadband sound generation by confined turbulent jets," *Journal of the Acoustical Society of America*, 112(2), 677-689.

6. **Zhang, Z.**, Mongeau, L., Frankel, S.H., 2002, "Experimental verification of the quasi-steady approximation for aerodynamic sound generation by pulsating jets in tubes," *Journal of the Acoustical Society of America*, 112(4), 1652-1663.

7. **Zhang, Z.**, Espy-Wilson, C., Tiede, M., 2003, "Acoustic modeling of American English lateral approximants," *Proceedings of the 8th European Conference on Speech Communication and Technology (Eurospeech)*, Geneva, Switzerland, 2393-2396.

8. **Zhang, Z.**, Boyce, S., Espy-Wilson, C., Tiede, M., 2003, "Acoustic strategies for production of American English retroflex /r/," Proceedings of the 15th International Congress of Phonetic Sciences (ICPHS), Barcelona, Spain, 1125-1128.

9. **Zhang, Z.**, Espy-Wilson, C.Y. 2004. "A vocal tract model of American English /l/," *Journal of the Acoustical Society of America*, 115(3), 1274-1280.

10. **Zhang, Z.**, Mongeau, L., Frankel, S.H., Thomson, S.L., Park, J., 2004, "Sound generation by steady flow through glottis shaped orifices," *Journal of the Acoustical Society of America*, 116(3), 1720-1728.

11. **Zhang, Z.**, Espy-Wilson, C., Boyce, S., Tiede, M., 2005, "Modeling of the front cavity and sublingual space in American English rhotic sounds," Proceedings of the 30th IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Philadelphia, Pennsylvania, 893-896.

12. **Zhang, Z.**, Mongeau, L. 2006. "Broadband sound generation by confined pulsating jets in a mechanical model of the human larynx," *Journal of the Acoustical Society of America*, 119(6), 3995-4005.

13. **Zhang, Z.**, Neubauer, J., Berry D.A. 2006. "The influence of subglottal acoustics on laboratory models of phonation," *Journal of the Acoustical Society of America*, 120(3), 1558-1569.

14. Berry D.A., **Zhang, Z.**, Neubauer, J. 2006. "Mechanisms of irregular vibration in a physical model of the vocal folds," *Journal of the Acoustical Society of America*, 120(3), EL36-EL42.

15. **Zhang, Z.**, Neubauer, J., Berry D.A., 2006. "Aerodynamically and acoustically driven modes of vibration in a physical model of the vocal folds," *Journal of the Acoustical Society of America*, 120(5), 2841-2849.

16. Neubauer, J., **Zhang, Z.**, Miraghaie, R., and Berry D.A., 2007. "Coherent structures of the nearfield flow in a self-oscillating physical model of the vocal folds," *Journal of the Acoustical Society of America*, 121(2), 1102-1118.

17. **Zhang, Z.**, Neubauer, J., and Berry D.A. 2007, "Physical mechanisms of phonation onset: a linear stability analysis of an aeroelastic continuum model of phonation," *Journal of the Acoustical Society of America*, 122(4), 2279-2295.

18. **Zhang, Z.**, 2008, "Influence of flow separation location on phonation onset," *Journal of the Acoustical Society of America*, 124(3), 1689-1694.

19. **Zhang, Z.**, 2009, "Characteristics of phonation onset in a two-layer vocal fold model," *Journal of the Acoustical Society of America*, 125(2), 1091-1102.

20. **Zhang, Z.**, Neubauer, J., Berry D.A., 2009, "Influence of vocal fold stiffness and acoustic loading on flow-induced vibration of a single-layer vocal fold model," *Journal of Sound and Vibration*, 322, 299-313.

21. Long, J., Neubauer, J., **Zhang, Z.**, Zuk, P., Berke, G., Chhetri, D., 2010, "Functional testing of a tissue-engineered vocal fold cover replacement," *Otolaryngology-Head and Neck Surgery*, 142, 438-440.

22. **Zhang, Z.**, 2010, “Dependence of phonation threshold pressure and frequency on vocal fold geometry and biomechanics,” *Journal of the Acoustical Society of America*, 127(4), 2554-2562.

23. **Zhang, Z.**, 2010, “Vibration in a self-oscillating vocal fold model with left-right asymmetry in body-layer stiffness,” *Journal of the Acoustical Society of America*, 128(5), EL279-EL285.

24. **Zhang, Z.**, and Neubauer, J., 2010, “On the acoustical relevance of supraglottal flow structures to low-frequency voice production,” *Journal of the Acoustical Society of America*, 128(6), EL378-EL383.

25. Chhetri, D., **Zhang, Z.**, and Neubauer, J., 2011, “Measurement of Young’s modulus of vocal folds by indentation,” *Journal of Voice*, 25(1), 1-7.

26. **Zhang, Z.**, 2011, “On the difference between negative damping and eigenmode synchronization as two phonation onset mechanisms,” *Journal of the Acoustical Society of America*, 129(4), 2163-2167.

27. Mendelsohn, A., **Zhang, Z.**, 2011, “Phonation threshold pressure and onset frequency in a two-layer physical model of the vocal folds,” *Journal of the Acoustical Society of America*, 130(5), 2961-2968.

28. **Zhang, Z.**, 2011, “Restraining mechanisms in regulating glottal closure during phonation,” *Journal of the Acoustical Society of America*, 130(6), 4010-4019.

29. **Zhang, Z.**, Luu, T.H., 2012, “Asymmetric vibration in a two-layer vocal fold model with left-right stiffness asymmetry: Experiment and simulation,” *Journal of the Acoustical Society of America*, 132(3), 1626-1635.

30. **Zhang, Z.**, Yin, J., 2013, “The influence of thyroarytenoid and cricothyroid muscle activation on vocal fold stiffness and eigenfrequencies,” Proceedings of Meetings on Acoustics (ICA 2013, Montreal, Canada), vol. 19, pp. 060236 (8 pages).

31. **Zhang, Z.**, Xuan, Y., 2013, “Influence of epithelium and fiber locations on glottal closure and sound production at soft-phonation conditions,” Proceedings of Meetings on Acoustics (ICA 2013, Montreal, Canada), vol. 19, pp. 035045 (7 pages).

32. **Zhang, Z.**, Kreiman, J., Gerratt, B.R., Garellek, M., 2013, “Acoustic and perceptual effects of changes in body-layer stiffness in symmetric and asymmetric vocal fold models,” *Journal of the Acoustical Society of America*., 133(1), 453-462.

33. Berke, G., Mendelsohn, A.H., Howard, S., **Zhang, Z.**, 2013, “Neuromuscular induced phonation in a human *ex vivo* perfused larynx preparation,” *Journal of the Acoustical Society of America*, 133(2), EL114-EL117.

34. Yin, J., **Zhang, Z.**, 2013, "The influence of thyroarytenoid and cricothyroid muscle activation on vocal fold stiffness and eigenfrequencies," *Journal of the Acoustical Society of America*, 133(5), 2972-2983.

35. Xuan, Y., **Zhang, Z.**, 2014, "Influence of embedded fibers and an epithelium layer on glottal closure pattern in a physical vocal fold model," *Journal of Speech, Language, and Hearing Research*, 57, 416-425.

36. Mendelsohn, A., Xuan, Y., **Zhang, Z.**, 2014, "Voice outcomes following laser cordectomy for early glottic cancer: a physical model investigation," *Laryngoscope*, 124, 1882-1886.

37. **Zhang, Z.**, 2014, "The influence of material anisotropy on vibration at onset in a three-dimensional vocal fold model," *Journal of the Acoustical Society of America*, 135(3), 1480-1490.

38. Kreiman J., Gerratt, B., Garellek, M., Samlan, R., **Zhang, Z.**, 2014, "Toward a unified theory of voice production and perception," *Loquens,* 1(1), e009.

39. Yin, J., **Zhang, Z.**, 2014, "Interaction between the thyroarytenoid and lateral cricoarytenoid muscles in the control of vocal fold adduction and eigenfrequencies," *Journal of Biomechanical Engineering*, 136(11), Paper No. 111006 (10 pages).

40. Farahani, M., **Zhang, Z.**, 2014, "A computational study of the effect of intraglottal vortex-induced negative pressure on vocal fold vibration," *Journal of the Acoustical Society of America*, 136(5), EL369-EL375.

41. **Zhang, Z.**, Chhetri, D., Bergeron, J., 2015, "Effects of implant stiffness, shape, and medialization depth on the acoustic outcomes of medialization laryngoplasty," *Journal of Voice,* 29(2), 230-235.

42. Long, J., Salinas, J., Rafizadeh, S., Luegmair, G., **Zhang, Z.**, Chhetri, D., 2015, "In vivo vocal fold cover layer replacement," *Laryngoscope*, 125(2), 406-411.

43. **Zhang, Z.**, 2015, "Regulation of glottal closure and airflow in a three-dimensional phonation model: Implications for vocal intensity control," *Journal of the Acoustical Society of America*, 137(2), 898-910.

44. Tse, J., **Zhang, Z.**, Long, J. 2015, "Effects of vocal fold epithelium removal on vibration in an excised human larynx model," *Journal of the Acoustical Society of America*, 138(1), EL60-EL64.

45. Mendelsohn, A., **Zhang, Z.**, Luegmair, G., Orestes, M., Berke, G. 2015, "Preliminary Study of the Open Quotient in an Ex Vivo Perfused Human Larynx," *JAMA Otolaryngology- Head and Neck Surgery*, 141(8), 751-756.

46. Signorello, R., **Zhang, Z.**, Gerratt, B., Kreiman, J. 2016, “Impact of vocal tract resonance on the perception of voice quality changes caused by varying vocal fold stiffness," *Acta Acustica united with Acustica*, 102(2), 209-213.

47. Shiba, T., Hardy, J., Luegmair, G., **Zhang, Z.**, Long, J. 2016, “Tissue-Engineered Vocal Fold Mucosa Implantation in Rabbits," *Otolaryngology- Head and Neck Surgery*, 154(4), 679-688.

48. **Zhang, Z.**, 2016, “Cause-effect relationship between vocal fold physiology and voice production in a three-dimensional phonation model," *Journal of the Acoustical Society of America*, 139(4), 1493-1507.

49. Wu, L., **Zhang, Z.** 2016, “A parametric vocal fold model based on magnetic resonance imaging," *Journal of the Acoustical Society of America*, 140(2), EL159-EL165.

50. Farahani, M., **Zhang, Z.** 2016, “Experimental validation of a three-dimensional reduced-order continuum model of phonation," *Journal of the Acoustical Society of America*, 140(2), EL172-EL177.

51. Yin, J., **Zhang, Z.** 2016, “Laryngeal muscular control of vocal fold posturing: Numerical modeling and experimental validation," *Journal of the Acoustical Society of America*, 140(3), EL280-EL284.

52. **Zhang, Z.** 2016, “Mechanics of human voice production and control," *Journal of the Acoustical Society of America*., 140(4), 2614-2635.

53. **Zhang, Z.** 2016, “Respiratory laryngeal coordination in airflow conservation and reduction of respiratory effort of phonation," *Journal of Voice*, 30(6), 760.e7-760.e13.

54. Vahabzadeh-Hagh, A., **Zhang, Z.**, Chhetri, D. (2017), “Three Dimensional Posture Changes of the Vocal Fold from Paired Intrinsic Laryngeal Muscles,” *Laryngoscope*, 127, 656–664.

55. Feinstein, A., **Zhang, Z.**, Chhetri, D., Long, J. (2017), “Measurement of cough aerodynamics in healthy adults," *Annals of Otology, Rhinology & Laryngology*., 126(5), 396-400.

56. Vahabzadeh-Hagh, A., **Zhang, Z.**, Chhetri, D. (2017), “Quantitative Evaluation of the In Vivo Vocal Fold Medial Surface Shape," *Journal of Voice*, 31(4), 513.e15-513.e23.

57. Wu, L., **Zhang, Z.** in press, “A computational study of vocal fold dehydration during phonation," *IEEE Transactions on Biomedical Engineering*.

Chapters

1. Zhang, Z., Berry, D.A., 2010, "Breathing, Airflow and Mechanisms of Phonation Onset," The Voice, Member Newsletter of the Voice Foundation, Spring 2010, Volume 15, Issue 1, 1-2.

PRESENTATIONS

Conference presentations

1. Zhao, W., Zhang, Z., Frankel, S.H., Mongeau, L., 2000, "A quasi-one-dimensional model for speech production," the 139th Meeting of the Acoustical Society of America, Atlanta, Georgia, May 30 – June 3, 2000, *J. Acoust. Soc. Am.*, 107, No. 5, Pt.2, 2905.

2. Zhang, Z., Mongeau, L., Frankel, S.H., 2001, "Broadband sound generation by flow through a dynamic physical model of the larynx," the 141st Meeting of the Acoustical Society of America, Chicago, Illinois, June, 2001, *J. Acoust. Soc. Am.*, 109, No. 5, Pt. 2, 2416.

3. Zhang, Z., Mongeau, L., Frankel, S.H., 2002, "Effects of subglottal and supraglottal acoustic loading on voice production," the 143rd Meeting of the Acoustical Society of America, Pittsburg, Pennsylvania, June 2002, *J. Acoust. Soc. Am.*, 111, No. 5, Pt. 2, 2476.

4. Mongeau, L., Zhang, Z., Thomson, S., Frankel, S.H., 2002, "Experimental verification of the quasi-steady assumption for flow through the larynx," The Voice Foundation's 31st Annual Symposium: Care of the Professional Voice, June 5-9, 2002, Philadelphia, Pennsylvania.

5. Zhang, Z., Mongeau, L., Thomson, S.L., and Frankel, S.H., 2002, "Verification of the quasi-steady approximation for sound generation by confined pulsating jets," the 3rd Biennial International Conference on Voice Physiology and Biomechanics, Denver, Colorado, September 13-16, 2002.

6. Zhang, Z., Mongeau, L., and Frankel, S.H., 2002, "Broadband sound generation by confined stationary jets through circular and glottis-shaped orifices," the 3rd Biennial International Conference on Voice Physiology and Biomechanics, Denver, Colorado, September 13-16, 2002.

7. Zhang, Z., Espy-Wilson, C.Y., 2003, "Finite element analysis of airflow in the vocal tract with lateral channels," the 146th Meeting of the Acoustical Society of America, Austin, Texas, November, 2003, *J. Acoust. Soc. Am.*, 114, No. 4, Pt. 2, 2395.

8. Zhou, X., Zhang, Z., Espy-Wilson, C.Y., 2004, "VTAR : A Matlab-based computer program for vocal tract acoustic modeling," the 147th Meeting of the Acoustical Society of America, New York, New York, May 2004, *J. Acoust. Soc. Am.*, 115, No. 5, Pt. 2, 2543.

9. Boyce, S., Espy-Wilson, C., Tiede, M., Zhang, Z., Holland, C., Choe, A., 2004, “Comparing idealized models to vocal tract imaging data: A case report,” From Sound to Sense: 50+ Years of Discoveries in Speech Communication, June 11-13, 2004, MIT, Cambridge, MA

10. Zhang, Z., Espy-Wilson, C.Y., Boyce, S., Tiede, M., 2004, “Sound propagation through the large front-cavity volume of American English rhotic sounds,” the 148th Meeting of the Acoustical Society of America, San Diego, California, November, 2004, *J. Acoust. Soc. Am.*, 116, No. 4, 2631.

11. Neubauer, J., Zhang, Z., and Berry, D., 2005, “Effects of subglottal acoustics on phonation onset,” the 149th Meeting of the Acoustical Society of America, Vancouver, Canada, May, 2005, *J. Acoust. Soc. Am.*, 117, No. 4, 2542.

12. Berry, D., Zhang, Z., and Neubauer, J., 2005, “Mucosal wave velocity,” the 150th Meeting of the Acoustical Society of America, Minneapolis, Minnesota, October, 2005, *J. Acoust. Soc. Am.*, 118, No. 3, 2026.

13. Neubauer, J., Zhang, Z., and Berry, D., 2005, “Observations of the near-field structures of the glottal flow,” the 150th Meeting of the Acoustical Society of America, Minneapolis, Minnesota, October, 2005, *J. Acoust. Soc. Am.*, 118, No. 3, 2026.

14. Neubauer, J., Zhang, Z., and Berry, D.A., 2006, "Coherent glottal flow structures in the nearfield of a physical model of vocal folds," the 5th Biennial International Conference on Voice Physiology and Biomechanics, Tokyo, Japan, July 12-14, 2006.

15. Berry, D.A., Zhang, Z., and Neubauer, J., 2006, "Mechanisms of irregular vocal fold vibration in a physical model of the vocal folds," the 5th Biennial International Conference on Voice Physiology and Biomechanics, Tokyo, Japan, July 12-14, 2006.

16. Zhang, Z., Neubauer, J., and Berry, D.A., 2006, "Aerodynamic and acoustic modes of phonation in a physical model of the vocal folds," the 5th Biennial International Conference on Voice Physiology and Biomechanics, Tokyo, Japan, July 12-14, 2006.

17. Berry, D., Zhang, Z., and Neubauer, J., December 2006, “Direct measurement of glottal volume velocity using high-speed stereoscopic particle imaging velocimetry,” the 152nd Meeting of the Acoustical Society of America, Honolulu, Hawaii, *J. Acoust. Soc. Am.*, 120, No. 5, 3354.

18. Zhang, Z., Neubauer, J., and Berry, D., December 2006, “Linear stability analysis of an aeroelastic model of phonation,” the 152nd Meeting of the Acoustical Society of America, Honolulu, Hawaii, *J. Acoust. Soc. Am.*, 120, No. 5, 3372.

19. Zhang, Z., Neubauer, J., and Berry, D., June 2007, “Physical mechanisms of phonation onset: The role of flow instabilities,” the 153rd Meeting of the Acoustical Society of America, Salt Lake City, Utah, *J. Acoust. Soc. Am.*, 121, No. 5, 3121. [Invited]

20. Neubauer, J., and Zhang, Z., July 2008, “On the influence of vocal fold collision on phonation,” the 155th Meeting of the Acoustical Society of America / Acoustics’08, Paris, France, *J. Acoust. Soc. Am.*, 123, No. 5, 3742.

21. Zhang, Z., and Neubauer, J., July 2008, “Influence of vocal fold stiffness on phonation characteristics at onset in a body-cover vocal fold model,” the 155th Meeting of the Acoustical Society of America / Acoustics’08, Paris, France, *J. Acoust. Soc. Am.*, 123, No. 5, 3578.

22. Zhang, Z., May 2009, “Geometric dependence of phonation threshold pressure and phonation onset frequency,” the 157th Meeting of the Acoustical Society of America, Portland, Oregon, *J. Acoust. Soc. Am.*, 125, 2639.

23. Joo, D., Neubauer, J., Zhang, Z., and Chhetri, D.K., 2009, "Measurement of the elastic modulus of vocal folds by indentation: Influence of indenter size, indentation depth, and boundary conditions," the 130th Annual Meeting of the American Laryngological Association, Phoenix, Arizona, May 28-29, 2009.

24. Long, J.L., Neubauer, J., Zhang, Z., Zuk, P., Berke, G.S., and Chhetri, D.K., 2009, "Functional testing of a tissue-engineered vocal fold cover replacement," the 2009 American Academy of Otolaryngology-Head and Neck Surgery Foundation (AAO-HNSF) Annual Meeting & OTO EXPO, San Diego, CA, October 4-7, 2009.

25. Zhang, Z., and Neubauer, J., October 2009, “Experimental observations on the influence of supraglottal flow structures on phonation,” the 158th Meeting of the Acoustical Society of America, San Antonio, Texas, *J. Acoust. Soc. Am.*, 126, 2246. [Invited]

26. Mendelsohn, A., Zhang, Z., November 2010, “Phonation threshold pressure and frequency in a two-layer physical model of the vocal folds: comparison between experiment and theory,” the 160th Meeting of the Acoustical Society of America, Cancun, Mexico, *J. Acoust. Soc. Am.*, 128, 2474.

27. Rehman, S.F., Zhang, Z., May 2011, “The influence of glottal flow model simplification on phonation onset,” the 161st Meeting of the Acoustical Society of America, Seattle, Washington, *J. Acoust. Soc. Am.*, 129, 2529.

28. Mendelsohn, A., Zhang, Z., May 2011, “Effects of left-right asymmetry in vocal fold geometry and stiffness on phonation onset in a physical Model,” the 161st Meeting of the Acoustical Society of America, Seattle, Washington, *J. Acoust. Soc. Am.*, 129, 2530.

29. Zhang, Z., Kreiman, J., Gerratt, B., May 2011, “Perceptual sensitivity to changes in vocal fold geometry and stiffness,” the 161st Meeting of the Acoustical Society of America, Seattle, Washington, *J. Acoust. Soc. Am.*, 129, 2529.

30. Zhang, Z., November 2011, “Restraining mechanisms in regulating glottal closure during phonation,” the 162nd Meeting of the Acoustical Society of America, San Diego, California, *J. Acoust. Soc. Am.*, 130, 2441.

31. Zhang, Z., May 2012, “Publishing in the Journal of the Acoustical Society of America,” the 163rd Meeting of the Acoustical Society of America, Hong Kong, China, *J. Acoust. Soc. Am.*, 131, pp. 3432. [Invited]

32. Zhang, Z., Luu, T., May 2012, “Experimental and theoretical investigation of self-sustained vibration in a two-layer vocal fold model with left-right stiffness asymmetry,” the 163rd Meeting of the Acoustical Society of America, Hong Kong, China, *J. Acoust. Soc. Am.*, 131, 3347.

33. Chhetri, D., Zhang, Z., May 2012, “Influence of medialization depth, implant shape, and implant stiffness in medialization thyroplasty,” the 163rd Meeting of the Acoustical Society of America, Hong Kong, China, *J. Acoust. Soc. Am.*, 131, 3347.

34. Zhang, Z., Kreiman, J., Gerratt, B.R., Garellek, M., 2012, "Relationship between left-right stiffness mismatches, left-right vibration asymmetries, and voice quality," the 8th International Conference on Voice Physiology and Biomechanics, Erlangen, Germany, July 5-7, 2012.

35. Bergeron, J., Zhang, Z., Chhetri, D., 2012, "The effect of implant stiffness, shape, and medialization depth on the phonatory outcomes of medialization thyroplasty," the Fall Voice Conference, New York, NY, October 4-6, 2012.

36. Yin, J., Zhang, Z., October 2012, “Numerical investigation of the influence of thyroarytenoid and cricothyroid muscle contraction on the geometry and biomechanical properties of the vocal folds,” the 164th Meeting of the Acoustical Society of America, Kansas City, Missouri, *J. Acoust. Soc. Am.*, 132, 2088.

37. Zhang, Z., Xuan, Y. June 2013, “Influence of epithelium and fiber locations on glottal closure and sound production at soft-phonation conditions,” the 165th Meeting of the Acoustical Society of America / ICA 2013, Montreal, Canada, *J. Acoust. Soc. Am.*, 133, 3417. [Invited]

38. Zhang, Z., Yin, J., June 2013, “The influence of thyroarytenoid and cricothyroid muscle activation on vocal fold stiffness and eigenfrequencies,” the 165th Meeting of the Acoustical Society of America / ICA 2013, Montreal, Canada, *J. Acoust. Soc. Am.*, 133, 3601. [Invited]

39. Zhang, Z., 2013, August 2013, "Effects of vocal fold material anisotropy and nonlinearity on vocal fold vibration" the 10th Pan-European Voice Conference, Prague, Czech, August 21-24, 2013. [Invited]

40. Gerratt, B., Kreiman, J., Zhang, Z., November 2013, " Toward a Unified Theory of Voice Production & Perception" 2013 ASHA Convention, Chicago, IL, November 14-16, 2013.

41. Fata, B., Vergara, J., Zhang, Z., December 2013, "Direct characterization of collagen recruitment in the human vocal fold lamina propria" the 166th Meeting of the Acoustical Society of America, San Francisco, CA, *J. Acoust. Soc. Am.*, 134, 4204.

42. Zhang, Z., Yin, J., April 2014, "Interaction between the thyroarytenoid and lateral cricoarytenoid muscles in the control of vocal fold adduction and eigenfrequencies" the 9th International Conference on Voice Physiology and Biomechanics, Salt Lake City, UT, April 10-12, 2014.

43. Fata, B., Zhang, Z., Vergara, J., April 2014, "Estimating the material properties of collagen and elastin in human vocal fold lamina propria" the 9th International Conference on Voice Physiology and Biomechanics, Salt Lake City, UT, April 10-12, 2014.

44. Kreiman, J., Samlan, R., Chen, G., Gerratt, B.R., Zhang, Z., April 2014, "The relationship of glottal area and glottal flow to voice quality" the 9th International Conference on Voice Physiology and Biomechanics, Salt Lake City, UT, April 10-12, 2014.

45. Berry, D., Neubauer, J., Zhang, Z., October 2014, “Impact of subglottal resonances on bifurcations and register changes in laboratory models of phonation,” the 168th Meeting of the Acoustical Society of America, Indianapolis, IN, *J. Acoust. Soc. Am.*, 136, 2259.

46. Zhang, Z., October 2014, “A reduced-order three-dimensional continuum model of voice production,” the 168th Meeting of the Acoustical Society of America, Indianapolis, IN, *J. Acoust. Soc. Am.*, 136, 2293.

47. Farahani, M., Zhang, Z., October 2014, “A study on the effect of intraglottal vortical structures on vocal fold vibration,” the 168th Meeting of the Acoustical Society of America, Indianapolis, IN, *J. Acoust. Soc. Am.*, 136, 2294.

48. Luegmair, G., Chhetri, D., Zhang, Z., October 2014, “Effects of thyroarytenoid muscle activation on phonation in an in vivo canine larynx model,” the 168th Meeting of the Acoustical Society of America, Indianapolis, IN, *J. Acoust. Soc. Am.*, 136, 2294.

49. Signorello, R., Zhang, Z., Gerratt, B., Kreiman, J., October 2014, “Impact of vocal tract resonance on the perception of voice quality changes caused by vocal fold

stiffness," the 168th Meeting of the Acoustical Society of America, Indianapolis, IN, *J. Acoust. Soc. Am.*, 136, 2295.

50. Yin, J., Zhang, Z., April 2015, "Numerical modeling of muscular control of vocal fold posturing and eigenfrequencies," the 11th International Advances in Quantitative Laryngology, Voice and Speech Research (AQL) Conference, London, UK, April 8-10, 2015.

51. Mendelsohn, A., Zhang, Z., Luegmair, G., Orestes, M., Berke, G., April 2015, "Thyroarytenoid Muscle Stimulation Decreases Open Quotient in an Ex-Vivo Perfused Human Larynx Model," the 95th Annual Meeting of the American Broncho-Esophagological Association, Boston, MA, April 22-23, 2015.

52. Zhang, Z., May 2015, "Respiratory-laryngeal coordination in airflow conservation and reduction of respiratory efforts of phonation," the 169th Meeting of the Acoustical Society of America, Pittsburgh, PA.

53. Zhang, Z., May 2015, "Effects of laryngeal adjustments on vocal intensity: evidence from simulation and experiment," The Voice Foundation's 44th Annual Symposium: Care of the Professional Voice JOINT MEETING with the International Association of Phonosurgery, Philadelphia, PA, May 26th, 2015 - May 31st, 2015.

54. Signorello, R., Demolin, D., Henrich Bernardoni, N., Kreiman, J., Gerratt, B.R., Zhang, Z., August 2015, " F0 and intensity in charismatic political speech: A cross-cultural study," the 11th Pan-European Voice Conference, Firenze, Italy, August 31 – September 2, 2015.

55. Farahani, M., Zhang, Z., November 2015, "Experimental validation of a three-dimensional finite-amplitude nonlinear continuum model of phonation," the 170th Meeting of the Acoustical Society of America, Jacksonville, Florida, 2-6 November 2015.

56. Zhang, Z., November 2015, " Vibrational and acoustic consequences of changes in subglottal pressure, vocal fold stiffness, vocal fold approximation, and vocal fold thickness," the 170th Meeting of the Acoustical Society of America, Jacksonville, Florida, 2-6 November 2015.

57. Chhetri, D., Zhang, Z., Vahabzadeh, A., March 2016, "Control of glottal channel geometry by intrinsic laryngeal muscle activation," the 10th International Conference on Voice Physiology and Biomechanics, Viña del Mar, Chile, March 14-17, 2016.

58. Zhang, Z., May 2016, "Toward mapping voice registers in the physiological domain: A computational study," the 171st Meeting of the Acoustical Society of America, Salt Lake City, Utah, May 23-27, 2016.

59. Wu, L., Zhang, Z., December 2016, "A computational study of vocal fold dehydration during phonation," the 5th Joint Meeting of the Acoustical Society of

America and Acoustical Society of Japan, Honolulu, Hawaii, Nov. 28 – Dec. 2, 2016.

60. Zhang, Z., Chhetri, D.K., Vahabzadeh-Hagh, A., December 2016, " An empirical model linking intrinsic laryngeal muscle activation to vocal fold geometry and stiffness," the 5th Joint Meeting of the Acoustical Society of America and Acoustical Society of Japan, Honolulu, Hawaii, Nov. 28 – Dec. 2, 2016.

61. Zhang, Z., June 2017, "Toward real-time physically-based voice synthesis," Acoustics'17, Joint Meeting of the Acoustical Society of America and European Acoustics Association, Boston, Massachusetts, June 25 – June 29, 2017. *J. Acoust. Soc. Am.*, 141(5), 3468.