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EDUCATION

1992–1997	Stanford University, Stanford, California. Ph.D., Computer-Based Music Theory & Acoustics (1997) M.S., Electrical Engineering (1995)
1989–1990	Conservatoire National de Région de Bordeaux, Bordeaux, France Saxophone studies with Jean-Marie Londeix, attended under Fulbright Scholarship
1984–1988	Syracuse University, Syracuse, New York B.S., Electrical Engineering, Magna Cum Laude B.A., Music, Magna Cum Laude, Performance Honors

PROFESSIONAL EXPERIENCE

2003–current	PROFESSOR (since 2019), ASSOCIATE PROFESSOR (2009–2019), ASSISTANT PROFESSOR (2003–2009), Schulich School of Music, McGill University. Musical acoustics and vibrations, audio DSP research, graduate/undergraduate teaching and supervision.
2011	PROGRAMMING CONSULTANT, Immersion Corporation, percussion sound synthesis model development.
2011	PROGRAMMING CONSULTANT, Zenph Sound Innovations, Inc., virtual saxophone synthesis model development.
1997–2003	TECHNICAL DIRECTOR/RESEARCH ASSOCIATE/LECTURER, Center for Computer Research in Music & Acoustics (CCRMA), Stanford University. Audio DSP, acoustic, and psychoacoustic research; Industrial relations.
1999–2004	PROGRAMMING CONSULTANT, Kind of Loud Technologies/Universal Audio. Reverberation design, implementation, and voicing.
1999–2000	PROGRAMMING CONSULTANT, Staccato Systems, Inc. DSP algorithm development.
1997	PROGRAMMING CONSULTANT, Signal Processing Associates, Inc. Speech codec implementations in C/C++ based on ITU-T specifications.
1994–1995	PROGRAMMING CONSULTANT, Sondius Project, Office of Technology Licensing, Stanford University. Objective C/C and Motorola DSP56000 programming and digital waveguide musical instrument design.
1991	SYSTEMS ENGINEER, Electronic Data Systems (EDS), Lockport, NY. Engineering computer support for a General Motors manufacturing facility.
1989	SYSTEMS ENGINEER, General Electric, Government Electronic Systems Department, Syracuse, NY. Firmware specifications documentation.

HONOURS

2017 Elected "Fellow" of the Acoustical Society of America
2010 Awarded NSERC Discovery Accelerator Supplement, one of only 100 across Canada

PUBLICATIONS

Dissertation

Scavone, G. *An Acoustic Analysis of Single-Reed Woodwind Instruments with an Emphasis on Design and Performance Issues and Digital Waveguide Modeling Techniques*, PhD Thesis, Stanford University, 1997.

Book Chapters

BC3 Scavone, G., Patil, D. and Prasanna, S. R. M. (2023) "Unique Aspects and Sound Synthesis of Stringed Indian Musical Instruments." In *Indian Art Music: A Computational Perspective*, edited by Preeti Rao, Hema A. Murthy, S. R. M. Prasanna, Scheme for Promotion of Academic and Research Collaboration, pp. 263–278, ISBN: 978-93-91408-08-4.

BC2 Scavone, G. (2018) "Delay-Lines and Digital Waveguides." In *Springer Handbook of Systematic Musicology*, edited by Rolf Bader, Springer-Verlag, Berlin, ISBN: 978-3-662-55002-1, pp. 259–272.

BC1 Cook, P. R. and Scavone, G. (2004) "The Synthesis ToolKit (STK) in C++." In *Audio Anecdotes: A Cookbook of Audio Algorithms and Techniques*, edited by Ken Greenbaum, A.K. Peters, pp. 237–253.

Peer-Reviewed Journal Articles

J37 Beaton, D. and Scavone, G. (2022) "Experimental measurements of a prototype vibraphone bar with three-dimensional cutaway geometry." *JASA Express Letters*, Vol. 2, No. 8, 083201, https://doi.org/10.1121/10.0013470.

J36 Acquilino, A. and Scavone, G. (2022) "Current state and future directions of technologies for music instrument pedagogy." *frontiers in Psychology*, Vol 13, March 2022, Article 835609, https://doi.org/10.3389/fpsyg.2022.835609.

J35 Scavone, G. and Smith, J. O. (2021) "A landmark article on nonlinear time-domain modeling of musical acoustics." *Journal of the Acoustical Society of America*, Vol. 150, No. 2, pp. R3–R4.

J34 Fu, L., Fritz, C. and Scavone, G. (2021) "Perception of violin soundpost tightness through playing and listening tests." *Journal of the Acoustical Society of America*, Vol. 150, No. 1, pp. 540–550.

J33 Beaton, D. and Scavone, G. (2021) "Three-dimensional tuning of idiophone bar modes via finite element analysis." *Journal of the Acoustical Society of America*, Vol. 149, No. 6, pp. 3758–3768.

J32 Maestre, E., Scavone, G. and Smith, J. O. (2021) "State-space modeling of sound source directivity: an experimental study of the violin and the clarinet." *Journal of the Acoustical Society of America*, Vol. 149, No. 4, pp. 2768–2781.

J31 Wang, S., Maestre, E. and Scavone, G. (2021) "Acoustical modeling of the saxophone mouthpiece as a transfer matrix." *Journal of the Acoustical Society of America*, Vol. 149, No. 3, pp. 1901–1912.

J30 Kemp, C. and Scavone, G. (2020) "Mechanical, anatomical and modeling techniques for alto saxophone reed evaluation and classification." *Wood Science and Technology*, Vol. 54, pp. 1677–1704, https://doi.org/10.1007/s00226-020-01224-y.

J29 Petiot, J-F., Kersaudy, P., Scavone, G., McAdams, S., and Gazengel, B. (2017) "Investigation of the relationships between perceived qualities and sound parameters of saxophone reeds." *Acta Acustica united with Acustica*, Vol. 103, No. 5, pp. 812–829.

J28 Saitis, C., Scavone, G., Fritz, C., Dubois, D. and Guastavino, C. (2017) "Perceptual evaluation of violins: A psycholinguistic analysis of preference verbal descriptions by experienced musicians." *Journal of the Acoustical Society of America*, Vol. 141, No. 4, pp. 2746–2757.

J27 Maestre, E., Scavone, G. and Smith, J.O. (2017) "Joint Modeling of Bridge Admittance and Body Radiativity for Efficient Synthesis of String Instrument Sound by Digital Waveguides." *IEEE Transactions on Audio, Speech and Language Processing*, Vol. 25, No. 5, pp. 1128–1139.

J26 Kemp, C. and Scavone, G. (2017) "Microstructure Contributions to Vibrational Damping and Identification of Damage Mechanisms in Arundo Donax L: Reed Cane for Woodwind Instruments." *Materials Research Society Advances*, DOI: 10.1557/adv.2017.223, pp. 1–20.

J25 Mansour, H., Woodhouse, J. and Scavone, G. (2017) "On minimum bow force for bowed strings." *Acta Acustica united with Acustica*, Vol. 103, No. 2, pp. 317–330.

J24 Mansour, H., Woodhouse, J. and Scavone, G. (2016) "Enhanced time-domain modelling of musical strings. Part 2: Bowed strings." *Acta Acustica united with Acustica*, Vol. 102, No. 6, pp. 1094–1107.

J23 Mansour, H., Woodhouse, J. and Scavone, G. (2016) "Enhanced time-domain modelling of musical strings. Part 1: Plucked strings." *Acta Acustica united with Acustica*, Vol. 102, No. 6, pp. 1082–1093.

J22 Maestre, E., Scavone, G. and Smith, J.O. (2016) "Design of Recursive Digital Filters in Parallel Form by Linearly Constrained Pole Optimization." *IEEE Signal Processing Letters*, Vol. 23, Issue 11, pp. 1547–1550.

J21 Kergomard, J., Lefebvre, A. and Scavone, G. (2015) "Matching of fundamental modes at a junction of a cylinder and a truncated cone; Application to the calculation of some radiation impedances." *Acta Acustica united with Acustica*, Vol. 101, No. 6, pp. 1189–1198.

J20 Fréour, V., Lopes, N., Hélie, T., Caussé, R. and Scavone, G. (2015) "In-vitro and numerical investigations of the influence of a vocal-tract resonance on lip auto-oscillations in trombone performance." *Acta Acustica united with Acustica*, Vol. 101, No. 2, pp. 256–269.

J19 Eveno, P., Dalmont, J.-P., Caussé, R. and Scavone, G. (2015) "An acoustic and perceptual evaluation of saxophone pad 'resonators'." *Acta Acustica united with Acustica*, Vol. 101, No. 2, pp. 246–255.

J18 Mansour, H., Fréour, V., Saitis, C., and Scavone, G. (2015) "Post-classification of nominally identical steel-string guitars using bridge admittances." *Acta Acustica united with Acustica*, Vol. 101, No. 2, pp. 394–407.

J17 Saitis, C., Scavone, G., Fritz, C., and Giordano, B. (2015) "Effect of task constraints on the perceptual evaluation of violins." *Acta Acustica united with Acustica*, Vol. 101, No. 2, pp. 382–393.

J16 Damodaran, A., Mansour, H., Lessard, L., Scavone, G. and Suresh Babu, A. (2015) "Application of Composite Materials to the Chenda, an Indian Percussion Instrument." *Applied Acoustics*, Vol. 88, pp. 1–5.

J15 Hézard, T., Fréour, V., Caussé, R., Hélie, T. and Scavone, G. (2014) "Synchronous multimodal measurements on lips and glottis: comparison between two human-valve oscillating systems." *Acta Acustica united with Acustica*, Vol. 100, No. 6, pp. 1172–1185.

J14 Lefebvre, A., Scavone, G., Kergomard, J. (2013) "External tonehole interactions in woodwind instruments." *Acta Acustica united with Acustica*, Vol. 99, No. 6, pp. 975–985.

J13 Fréour, V. and Scavone, G. (2013) "Acoustical interaction between vibrating lips, downstream air column, and upstream airways in trombone performance." *Journal of the Acoustical Society of America*, Vol. 134, No. 5, pp. 3887–3898.

J12 Shi, Y., da Silva, A. and Scavone, G. (2013) "Lattice Boltzmann simulations of sound directivity of a cylindrical pipe with mean flow." *Journal of Physics A: Mathematical and Theoretical*, **46**, ISBN: 1751-8113, 315501 (13pp).

J11 Saitis, C., Giordano, B., Fritz, C., and Scavone, G. (2012) "Perceptual evaluation of violins: A quantitative analysis of preference judgments by experienced players." *Journal of the Acoustical Society of America*, Vol. 132, No. 6, pp. 4002–4012.

J10 Lefebvre, A., Scavone, G. (2012) "Characterization of woodwind instrument toneholes with the finite element method." *Journal of the Acoustical Society of America*, Vol. 131, No. 4, pp. 3153–3163.

J9 Murphy, E., Lagrange, M., Scavone, G., Depalle, P. and Guastavino, C. (2011) "Perceptual evaluation of rolling sound synthesis." *Acta Acustica united with Acustica*, Vol. 97, No. 5, pp. 840–851.

J8 da Silva, A., Scavone, G., and Lenzi, A. (2010) "Numerical investigation of the mean flow effect on the acoustic reflection at the open end of clarinet-like instruments." *Acta Acustica united with Acustica*, Vol. 96, No. 5, pp. 959–966.

J7 Lagrange, M., Scavone, G., and Depalle, P. (2010) "Analysis / synthesis of sounds generated by sustained contact between rigid objects." *IEEE Transactions on Audio, Speech and Language Processing*, Vol. 18, No. 3, pp. 509–518.

J6 da Silva, Scavone, G., and Lefebvre, A. (2009) "Sound reflection at the open end of axisymmetric ducts issuing a subsonic mean flow: A numerical study." *Journal of Sound and Vibration*, Vol. 327, pp. 507–528.

J5 Scavone, G., Lefebvre, A., and da Silva, A. (2008) "Measurement of vocal-tract influence during saxophone performance." *Journal of the Acoustical Society of America*, Vol. 123, pp. 2391–2400.

J4 da Silva, A., Scavone, G. and van Walstijn, M. (2007) "Numerical simulations of fluid-structure interactions in single-reed mouthpieces." *Journal of the Acoustical Society of America*, Vol. 122, pp. 1798–1810.

J3 da Silva, A. and Scavone, G. (2007) "Lattice Boltzmann simulations of the acoustic radiation from waveguides." *Journal of Physics A: Mathematical and Theoretical*, Vol. 40, pp. 397–408.

J2 Lakatos, S., Cook, P. R., and Scavone, G. (2000) "Selective attention to the parameters of a physically informed sonic model." *Journal of the Acoustical Society of America*, Vol. 107, pp. L31–36.

J1 Scavone, G. (1998) "The Musical Acoustics Research Library." *Journal of the Catgut Acoustical Society*, Vol. 3, No. 6 (Series II), pp. 24–26.

Articles in Conference Proceedings (Peer-Reviewed Papers or Abstracts)

C111 Puranik, N. and Scavone, G. (2023) "Physically Inspired Signal Model for Harmonium Sound Synthesis." In *Proceedings of the 26th International Conference on Digital Audio Effects*, Copenhagen, Denmark, 4–7 September 2023, pp. 379–382.

C110 Puranik, N. and Scavone, G. (2023) "Clamped Bar Model for Free Reeds." In *Proceedings of the Forum Acusticum 2023 Convention of the European Acoustics Association*, Torino, Italy, 11–15 September 2023.

C109 Wang, S., Maestre, E. and Scavone, G. (2023) "Characterization of Single-Reed Instrument Sound Generation Based on Ffowcs Williams-Hawkings Analogy." In *Proceedings of the 2023 Stockholm Musical Acoustics Conference*, 12–17 June 2023, pp. 55–62.

C108 Acquilino, A., Puranik, N., Fujinaga, I. and Scavone, G. (2023) "Detecting Efficiency in Trumpet Sound Production: Proposed Methodology and Pedagogical Implications." In *Proceedings of the 2023 Stockholm Musical Acoustics Conference*, 12–17 June 2023, pp. 72–79.

C107 Puranik, N. and Scavone, G. (2022) "Physical modelling synthesis of a harmonium." In *Proceedings of Meetings on Acoustics*, Fourth Vienna Talk on Music Acoustics, 49, 035015, https://doi.org/10.1121/2.0001679.

C106 Luan, X., Wang, S., Li, Z., and Scavone, G. (2022) "Acoustical Analysis of the Chinese Transverse Flute (dizi) Using the Transfer Matrix Method." In *Proceedings of Meetings on Acoustics*, Fourth Vienna Talk on Music Acoustics, 49, 035014, https://doi.org/10.1121/2.0001678.

C105 Laguerre, S. and Scavone, G. (2021) "Simulating a Hexaphonic Pickup using Parallel Comb Filters for Guitar Distortion." In *Proceedings of the 2020/21 International Conference on Digital Audio Effects (DAFx-20in21)*, Sept. 8–10, pp. 105–112 (Awarded "Second Best Paper").

C104 Wang, S., Wanderley, M. and Scavone, G. (2019) "The study of mapping strategies between the excitors of the single-reed woodwind and the bowed string." *Proceedings of the 2019 China Conference on Sound and Music Technology*, Harbin, China, 26–29 December, pp. 107–119.

C103 Beaton, D. and Scavone, G. (2019) "Optimization of marimba bar geometry by 3D finite element analysis." *Proceedings of the 2019 International Symposium on Musical Acoustics*, Detmold, Germany, 13–17 September, pp. 402–407.

C102 Beaton, D. and Scavone, G. (2019) "Measurement-based comparison of marimba bar modal behaviour." *Proceedings of the 2019 International Symposium on Musical Acoustics*, Detmold, Germany, 13–17 September, pp. 72–77.

C101 Kemp, C., Wang, S. and Scavone, G. (2019) "Design of a mechanical player system for fatigue-life evaluation of woodwind reeds." *Proceedings of the 2019 International Symposium on Musical Acoustics*, Detmold, Germany, 13–17 September, pp. 299–306.

C100 Maestre, E. and Scavone, G. (2019) "Creating virtual acoustic replicas of real violins." *Proceedings of the 2019 International Symposium on Musical Acoustics*, Detmold, Germany, 13–17 September, pp. 387–393.

C99 Wang, S. and Scavone, G. (2019) "Computational aeroacoustic modeling of single-reed mouthpiece using Palabos." *Proceedings of the 2019 International Symposium on Musical Acoustics*, Detmold, Germany, 13–17 September, pp. 234–241.

C98 Fu, L., Fritz, C. and Scavone, G. (2019) "Perception of violin soundpost height differences." *Proceedings of the 2019 International Symposium on Musical Acoustics*, Detmold, Germany, 13–17 September, pp. 450–457.

C97 Saitis, C., Fritz, C. and Scavone, G. (2019) "Sounds like melted chocolate: How musicians conceptualize violin sound richness." *Proceedings of the 2019 International Symposium on Musical Acoustics*, Detmold, Germany, 13–17 September, pp. 44–51.

C96 Maestre, E., Scavone, G. and Smith, J.O. (2019) "Virtual acoustic rendering by state wave synthesis." *Proceedings of the EAA Spatial Audio Signal Processing Symposium*, Paris, France, 6–7 September, pp. 31–36.

C95 Fu, L., Scavone, G. and Fritz, C. (2019) "Player evaluation of performance and student violins." *Proceedings of the 26th International Congress on Sound and Vibration*, Montreal, Canada, 7–11 July.

C94 Fu, L., Scavone, G. and Fritz, C. (2018) "How different strings affect violin qualities." *Proceedings of Meetings on Acoustics*, Vol. 35, 035003, https://doi.org/10.1121/2.0001007.

C93 Maestre, E., Scavone, G. and Smith, J.O. (2018) "Joint Modeling of Impedance and Radiation as a Recursive Parallel Filter Structure for Efficient Synthesis of Wind Instrument Sound." *Proceedings of the 21th International Conference on Digital Audio Effects*, Aveiro, Portugal, 4–8 September, pp. 157–164.

C92 Pàmies-Vilà, M., Scavone, G., Hofmann, A. and Chatziioannou, V. (2017) "Investigating vocal tract modifications during saxophone performance." *Proceedings of Meetings on Acoustics*, Vol. 31, No. 1, 035002, https://doi.org/10.1121/2.0000758.

C91 Maestre, E., Abel, J., Smith, J.O. and Scavone, G. (2017) "Constrained Pole Optimization for Modal Reverberation." *Proceedings of the 20th International Conference on Digial Audio Effects*, Edinburgh, UK, 5–9 September, pp. 381–388.

C90 Kemp, C. and Scavone, G. (2017) "Static Stiffness Evaluation and Aging Behaviour of Played Alto Saxophone Reeds." *Proceedings of the 2017 International Symposium on Musical Acoustics*, Montreal, Canada, 18–22 June, p. 4.

C89 Wang, S. and Scavone, G. (2017) "Finite Element Modeling of Sound Radiation at the Open End of a Conic Frustum." *Proceedings of the 2017 International Symposium on Musical Acoustics*, Montreal, Canada, 18–22 June, p. 38.

C88 Chafe, C., Maestre, E., Sarti, A., Canclini, A., Scavone, G., Smith, J. and Antonacci, F. (2017) "The Return of the Messiah: Modal Analysis and Bridge Admittance Modeling." *Proceedings of the 2017 International Symposium on Musical Acoustics*, Montreal, Canada, 18–22 June, p. 70.

C87 Rau, M., Maestre, E., Smith, J. and Scavone, G. (2017) "An Exploration of Guitar Neck Admittance Measurements Taken at Different String Stopping Locations." *Proceedings of the 2017 International Symposium on Musical Acoustics*, Montreal, Canada, 18–22 June, pp. 73–76.

C86 Abaeian, N., Blass, U., Scavone, G. and Lessard, L. (2017) "Finite Element Design and Manufacturing of a Nylon-String Guitar Soundboard from Sandwich-Structured Composites." *Proceedings of the 2017 International Symposium on Musical Acoustics*, Montreal, Canada, 18–22 June, p. 72.

C85 Llimona, Q., Saitis, C., Maestre, E. and Scavone, G. (2017) "Exploring Simulation-Based Playability Metrics of 9 Perceptually Evaluated Violins." *Proceedings of the 2017 International Symposium on Musical Acoustics*, Montreal, Canada, 18–22 June, p. 89.

C84 Maestre, E., Smith, J. and Scavone, G. (2017) "Analysis-Synthesis of Saxophone Input Impedances via Recursive Parallel Filters." *Proceedings of the 2017 International Symposium on Musical Acoustics*, Montreal, Canada, 18–22 June, pp. 105–108.

C83 Kemp, C. and Scavone, G. (2016) "Material properties and microstructure contributions to bibrational damping in arundo donax L – Reed cane for woodwind instruments." *Proceedings of the 2016 Materials Research Society Meeting, Symposium TC3 : Materials Issues in Art and Archaeology*, Boston, MA, 27 November – 2 December, TC3.4.01.

C82 Kemp, C. and Scavone, G. (2016) "Material properties and microstructure contributions to vibrational damping in arundo donax L: Reed cane for woodwind instruments." *Proceedings of the 22nd International Congress on Acoustics*, Buenos Aires, Argentina, 5–9 September, Paper ICA2016-570.

C81 Maestre, E., Scavone, G., Smith, J.O. (2015) "Digital modeling of string instrument bridge reflectance and body radiativity for sound synthesis by digital waveguides." *IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*, New Paltz, NY, 18–21 October, pp. 1–5.

C80 Shi, Y., da Silva, A. and Scavone, G. (2015) "LBM simulation of the quasi-static flow in a clarinet." In *Proceedings of the Third Vienna Talk on Music Acoustics*, 16–19 September, Vienna, Austria, pp. 35–42.

C79 Fréour, V., Mansour, H., Saitis, C. and Scavone, G. (2014) "Evaluation and classification of steel string guitars using bridge admittances." In *Proceedings of the 2014 International Symposium on Musical Acoustics*, Le Mans, France, 7–11 July, pp. 317–321.

C78 Eveno, P., Dalmont, J.-P., Caussé, R. and Scavone, G. (2014) "A perceptual study on the effect of pad resonators on the saxophone." In *Proceedings of the 2014 International Symposium on Musical Acoustics*, Le Mans, France, 7–11 July, pp. 471–476.

C77 Shi, Y., da Silva, A. and Scavone, G. (2014) "Numerical Simulation of Whistles Using Lattice Boltzmann Methods." In *Proceedings of the 2014 International Symposium on Musical Acoustics*, Le Mans, France, 7–11 July, pp. 615–621.

C76 Damodaran, A., Mansour, H., Lessard, L., Scavone, G. and Suresh Babu, A. (2013) "Design, manufacturing and testing of a cylindrical drum-shell using a sandwich structure." In *Proceedings of the 19th International Conference on Composite Materials*, Montreal, Canada, pp. 1153–1158.

C75 Fréour, V. and Scavone, G. (2013) "Trombone sound simulation under varying upstream coupling conditions." In *Proceedings of the 2013 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 502–508.

C74 Mansour, H., Woodhouse, J. and Scavone, G. (2013) "Enhanced simulation of the bowed cello string." In *Proceedings of the 2013 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 94–100.

C73 Saitis, H., Scavone, G., Fritz, C. and Giordano, B. (2013) "Evaluating violin quality: A comparison of player reliability in constrained vs. unconstrained tasks." In *Proceedings of the 2013 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 109–114.

C72 Saitis, H., Fritz, C., Guastavino, C. and Scavone, G. (2013) "Conceptualization of violin quality by experienced performers." In *Proceedings of the 2013 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 123–128.

C71 Petiot, J-F., Kersaudy, P., Scavone, G., and McAdams, S. (2013) "Study of the perceived quality of saxophone reeds by a panel of musicians." In *Proceedings of the 2013 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 451–457.

C70 Shi, Y., da Silva, A.R., and Scavone, G. (2013) "Numerical analysis of the mean flow effect on the sound directivity pattern of cylindrical ducts." In *Proceedings of the 2013 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 458–464.

C69 Maestre, E., Scavone, G. and Smith, J.O. (2013) "Digital modeling of the bridge driving-point admittances from measurements on violin-family instruments." In *Proceedings of the 2013 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 101–108.

C68 Scavone, G. and McBride, J. (2013) "The musical acoustics research library (MARL): Fully digital and online." In *Proceedings of the 2013 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 661–662.

C67 Fréour, V., Lopes, N., Hélie, T., Caussé, R. and Scavone, G. (2013) "Simulating different upstream coupling conditions on an artificial trombone player system using an active sound control approach." In *Proceedings of the 2013 International Congress on Acoustics*, Montreal, Canada.

C66 Hézard, T., Fréour, V., Caussé, R., Hélie, T. and Scavone, G. (2013) "Synchronous visualization of multimodal measurements on lips and glottis: Comparison between brass instruments and the human voice production system." In *Proceedings of the 2013 International Congress on Acoustics*, Montreal, Canada.

C65 Mansour, H., Woodhouse, J. and Scavone, G. (2013) "Time-domain simulation of the bowed cello string: Dual-polarization effect." In *Proceedings of the 2013 International Congress on Acoustics*, Montreal, Canada.

C64 Saitis, H., Scavone, G., Fritz, C. and Giordano, B. (2013) "Perceptual evaluation of violins: A comparison of intra-individual agreement in playing vs. listening tasks for the case of richness." In *Proceedings of the 2013 International Congress on Acoustics*, Montreal, Canada.

C63 da Silva, A.R., Shi, Y. and Scavone, G. (2013) "Computational analysis of the dynamic flow in single-reed woodwind instruments." In *Proceedings of the 2013 International Congress on Acoustics*, Montreal, Canada.

C62 Petiot, J-F., Kersaudy, P., Scavone, G., McAdams, S. and Gazengel, B. (2013) "Modeling of the subjective quality of saxophone reeds." In *Proceedings of the 2013 International Congress on Acoustics*, Montreal, Canada.

C61 Lee, J., Thibault, F., Depalle, P. and Scavone, G. (2013) "Granular Analysis / Synthesis for Simple and Robust Transformations of Complex Sounds." In *Proceedings of the AES 49th International Conference: Audio for Games*, London, UK.

C60 Fréour, V. and Scavone, G. (2012) "Investigation of the effect of upstream airways impedance on regeneration of lip oscillations in trombone performance." In *Proceedings of the Acoustics 2012 Conference*, Nantes, France, pp. 2225–2230.

C59 Mansour, H. and Scavone, G. (2012) "A comparison of vibration analysis techniques applied to the Persian setar." In *Proceedings of the Acoustics 2012 Conference*, Nantes, France, pp. 1737–1742.

C58 Saitis, C., Fritz, C., Giordano, B. and Scavone, G. (2012) "Bridge admittance measurements of 10 preference-rated violins." In *Proceedings of the Acoustics 2012 Conference*, Nantes, France, pp. 3599–3604.

C57 Lefebvre, A. and Scavone, G. (2011) "On the bore shape of conical instruments." In *Proceedings of the 2011 Canadian Acoustical Association Conference*, Quebec City, Quebec, Canada, pp. 128–129.

C56 Fréour, V. and Scavone, G. (2011) "Development of an electrolabiograph embedded in a trombone mouthpiece for the study of lip oscillation mechanisms in brass instrument performance." In *Proceedings of the 2011 Canadian Acoustical Association Conference*, Quebec City, Quebec City, Quebec, Canada, pp. 130–131.

C55 Lee, J., Depalle, P. and Scavone, G. (2011) "On the extraction of excitation from a plucked string sound in time domain." In *Proceedings of the 2011 Canadian Acoustical Association Conference*, Quebec City, Quebec, Canada, pp. 126–127.

C54 Saitis, C., Giordano, B. L., Fritz, C. and Scavone, G. (2011) "Aspects of experimental design for the perceptual evaluation of violin qualities." In *Proceedings of the 2011 Canadian Acoustical Association Conference*, Quebec City, Quebec, Canada, pp. 134—135.

C53 Fréour, V., Scavone G., Lefebvre A., and Germain F. (2011) "Acoustical properties of the vocal-tract in trombone performance." In *Proceedings of the 2011 Forum Acusticum Conference*, Aalborg, Denmark, pp. 625–630.

C52 Saitis, C., Giordano, B. L., Fritz, C. and Scavone, G. (2011) "Investigating inter-individual differences in the preference for the violins." In *Proceedings of the 2011 Forum Acusticum Conference*, Aalborg, Denmark, pp. 497–501.

C51 Lefebvre, A. and Scavone, G. (2011) "A comparison of saxophone impedances and their playing behavior." In *Proceedings of the 2011 Forum Acusticum Conference*, Aalborg, Denmark, pp. 539–544.

C50 Lee, J., Kim, M., Depalle, P. and Scavone, G. (2011) "Conformal method for the rectilinear digital waveguide mesh." In *Proceedings of the IEEE Workshop on Acoustics of Signal Processing to Audio and Acoustics (WASPAA'11)*, New Paltz, NY, Oct. 16–19, pp. 293–296.

C49 Sinclair, S., Wanderley, M., Hayward, V., and Scavone, G. (2011) "Noise-free haptic interaction with a bowed-string acoustic model." In *Proceedings of the IEEE World Haptics Conference 2011*, Istanbul, Turkey, June 21–24, pp. 463–468.

C48 Lefebvre, A. and Scavone, G. (2010) "Refinements to the Model of a Single Woodwind Instrument Tonehole." In *Proceedings of the 2010 International Symposium on Musical Acoustics*, Sydney / Katoomba, Australia.

C47 Lefebvre, A. and Scavone, G. (2010) "Finite Element Modeling of Woodwind Instruments." In *Proceedings of the 2010 International Symposium on Musical Acoustics*, Sydney / Katoomba, Australia.

C46 Fréour, V. and Scavone, G. (2010) "Vocal-Tract Influence in Trombone Performance." In *Proceedings of the 2010 International Symposium on Musical Acoustics*, Sydney / Katoomba, Australia.

C45 Lee, J., Depalle, P. and Scavone, G. (2010) "Analysis / Synthesis of Rolling Sounds Using a Source-Filter Approach." In *Proceedings of the 2010 International Conference on Digital Audio Effects (DAFx-10)*, Graz, Austria, Sept. 6–10.

C44 Kim, M. and Scavone, G. (2009) "Domain Decomposition Method for the Digital Waveguide Mesh." In *Proceedings of the 2009 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*, New Paltz, Oct. 18–21, pp. 21–24.

C43 Sinclair, S., Scavone, G. and Wanderley, M. (2009) "Audio-haptic interaction with the digital waveguide bowed string." In *Proceedings of the 2009 International Computer Music Conference*, Montreal, Canada, pp. 275–278.

C42 Lefebvre, A. and Scavone, G. (2008) "Input impedance measurements of conical acoustic systems using the two-microphone technique." In *Proceedings of the Acoustics '08 Conference*, Paris, France.

C41 Murphy, E., Lagrange, M., Scavone, G., Depalle, P. and Guastavino, C. (2008) "Perceptual Evaluation of a Real-time Synthesis Technique for Rolling Sounds." In *Proceedings of the 2008 International Conference on Enactive Interfaces*, Pisa, Italy.

C40 Zadel, M. and Scavone, G. (2008) "Recent developments in the Different Strokes environment." In *Proceedings of 2008 International Computer Music Conference*, Belfast, N. Ireland, pp. 1–4.

C39 Scavone, G. and Whetsell, N. (2008) "The Music Technology program at McGill University." In *Proceedings of 2008 International Computer Music Conference*, Belfast, N. Ireland, pp. 327–330.

C38 Lagrange, M., Scavone, G., and Depalle, P. (2008) "Time-domain analysis / synthesis of the excitation signal in a source / filter model of contact sounds." In *Proceedings of the 2008 International Conference on Auditory Display*, Paris, France.

C37 da Silva, A. and Scavone, G. (2007) "Coupling lattice Boltzmann models to digital waveguides for wind instrument simulations." In *Proceedings of the 2007 International Symposium on Musical Acoustics*, Barcelona, Spain.

C36 Lefebvre, A., Scavone, G., Abel, J. and Buckiewicz-Smith, A. (2007) "A comparison of impedance measurements using one and two microphones." In *Proceedings of the 2007 International Symposium on Musical Acoustics*, Barcelona, Spain.

C35 de Leon, S. and Scavone, G. (2007) "Coupled time-domain simulation of linear acoustic systems by boundary integration." In *Proceedings of the 2007 International Symposium on Musical Acoustics*, Barcelona, Spain.

C34 Matthews, T. and Scavone, G. (2007) "An online system for viewing the input impedance of saxophones." In *Proceedings of the 2007 International Symposium on Musical Acoustics*, Barcelona, Spain.

C33 Lefebvre, A. and Scavone, G. (2007) "Wind instrument acoustic research in the Computational Acoustic Modeling Laboratory, McGill University.", *Canadian Acoustics*, **35**, No. 3, pp. 52-53.

C32 da Silva, A., Kuehnelt, H. and Scavone, G. (2007) "A brief survey of the lattice Boltzmann method in musical acoustics." In *Proceedings of the 19th International Congress on Acoustics*, Madrid, Spain.

C31 Zadel, M. and Scavone, G. (2006) "Laptop performance: techniques, tools, and a new interface design." In *Proceedings of 2006 International Computer Music Conference*, New Orleans, USA, pp. 643–648.

C30 Scavone, G. and Smith, J. O. (2006) "A stable acoustic impedance model of the clarinet using digital waveguides." In *Proceedings of the 2006 International Conference on Digital Audio Effects (DAFx-06)*, Montreal, Canada, pp. 89–94.

C29 Zadel, M. and Scavone, G. (2006) "Different Strokes: a prototype software system for laptop performance and improvisation." In *Proceedings of 2006 Conference on New Interfaces for Musical Expression (NIME-06)*, Paris, France, pp. 168–171.

C28 da Silva, A. and Scavone, G. (2005) "Characterizing impedance of woodwind instruments with the lattice-Boltzmann method." In *Proceedings of the 2005 Brazilian Symposium of Computer Music (SBCM)*, Belo Horizonte, Brazil.

C27 Scavone, G. and Cook P. R. (2005) "RtMidi, RtAudio, and a Synthesis ToolKit (STK) update." In *Proceedings of the 2005 International Computer Music Conference*, Barcelona, Spain, pp. 327–330.

C26 Scavone, G. and da Silva, A. (2005) "Frequency content of breath pressure and implications for use in control." In *Proceedings of the 2005 Conference on New Interfaces for Musical Expression (NIME-05)*, Vancouver, Canada, pp. 93–96.

C25 da Silva, A., Wanderley, M. and Scavone, G. (2005) "On the use of flute air jet as a musical control variable." In *Proceedings of the 2005 Conference on New Interfaces for Musical Expression (NIME-05)*, Vancouver, Canada, pp. 105–108.

C24 Scavone, G. and Wanderley, M. (2004) "The Music Technology program at McGill University." In *Proceedings of the 2004 International Computer Music Conference*, Miami, USA, pp. 264–267.

C23 Scavone, G. (2003) "Modeling vocal-tract influence in reed wind instruments." In *Proceedings of the 2003 Stockholm Music Acoustics Conference*, Stockholm, Sweden, pp. 291–294.

C22 Scavone, G. (2003) "THE PIPE: explorations with breath control." In *Proceedings of the 2003 Conference on New Instruments for Musical Expression (NIME-03)*, Montreal, Canada, pp. 15–18.

C21 Scavone, G. (2002) "Time-domain synthesis of conical bore instrument sounds." In *Proceedings of the 2002 International Computer Music Conference*, Göteborg, Sweden, pp. 9–15.

C20 Scavone, G. and Karjalainen, M. (2002) "Tonehole radiation directivity: A comparison of theory to measurements." In *Proceedings of the 2002 International Computer Music Conference*, Göteborg, Sweden, pp. 325–329.

C19 Scavone, G. (2002) "RtAudio: A cross-platform C++ class for realtime audio input/output." In *Proceedings of the 2002 International Computer Music Conference*, Göteborg, Sweden, pp. 196–199.

C18 Scavone, G., Lakatos, S., and Harbke, C. (2002) "The Sonic Mapper: An interactive program for obtaining similarity ratings with auditory stimuli." In *Proceedings of the 2002 International Conference on Auditory Display*, Kyoto, Japan, pp. 368–371.

C17 Ben-Tal, O., Berger, J., Cook, B., Daniels, M., Scavone, G., and Cook, P. (2002) "SONART: The sonification application research toolbox." In *Proceedings of the 2002 International Conference on Auditory Display*, Kyoto, Japan, pp. 368–371.

C16 Scavone, G., Lakatos, S., Cook, P. R., and Harbke, C. (2001) "Perceptual spaces for sound effects obtained with an interactive similarity rating program." In *Proceedings of the International Symposium on Musical Acoustics*, Perugia, Italy, pp. 487–490.

C15 Scavone, G. and Lakatos, S. (2001) "Recent developments in woodwind instrument physical modeling." In *Proceedings of the 17th International Congress on Acoustics*, Rome, Italy.

C14 Chafe, C., Wilson, S., Leistikow, R., Chisholm, D. and Scavone, G. (2000) "A simplified approach to high quality music and sound over IP." In *Proceedings of the COST G-6 Conference on Digital Audio Effects*, Verona, Italy, pp. 159–163.

C13 Lakatos, S., Scavone, G., and Cook, P. R. (2000) "Obtaining perceptual spaces for large numbers of complex sounds: Sensory, cognitive, and decisional constraints." In C. Bonnet (Ed.), *Proceedings of the Sixteenth Annual Meeting of the International Psychophysics Society*, pp. 245–250.

C12 van Walstijn, M. and Scavone, G. (2000) "The wave digital tonehole model." In *Proceedings of the 2000 International Computer Music Conference*, Berlin, Germany, pp. 465–468.

C11 Scavone, G. (1999) "Modeling wind instrument sound radiation using digital waveguides." In *Proceedings of the 1999 International Computer Music Conference*, Beijing, China, pp. 355–358.

C10 Cook, P. R. and Scavone, G. (1999) "The Synthesis ToolKit (STK)." In *Proceedings of the 1999 International Computer Music Conference*, Beijing, China, pp. 164–166.

C9 Scavone, G. and Cook, P. R. (1998) "Real-time computer modeling of woodwind instruments." In *Proceedings of the 1998 International Symposium on Musical Acoustics*, Leavenworth, WA, pp. 197–202.

C8 Scavone, G. and Mathews, M. (1998) "The Musical Acoustics Research Library." In *Proceedings of the 1998 International Symposium on Musical Acoustics*, Leavenworth, WA, pp. 359–363.

C7 Smith, J. O. and Scavone, G. (1997) "The one-filter Keefe clarinet tonehole." In *Proceedings of the IEEE Workshop on Applied Signal Processing to Audio and Acoustics*, New York, pp. 19–22.

C6 Scavone, G. and Smith, J. O. (1997) "Scattering parameters for the Keefe clarinet tonehole model." In *Proceedings of the 1997 International Symposium on Musical Acoustics*, Edinburgh, Scotland, pp. 433–438.

C5 Scavone, G. and Smith, J. O. (1997) "Digital waveguide modeling of woodwind toneholes." In *Proceedings of the 1997 International Computer Music Conference*, Thessaloniki, Greece, pp. 260–263.

C4 Scavone, G. (1996) "Modeling and control of performance expression in digital waveguide models of woodwind instruments." In *Proceedings of the 1996 International Computer Music Conference*, Hong Kong, pp. 224–227.

C3 Scavone, G. (1995) "Digital waveguide modeling of the non-linear excitation of single-reed woodwind instruments." In *Proceedings of the 1995 International Computer Music Conference*, Banff, Canada, pp. 521–524.

C2 Scavone, G. (1995) "Digital waveguide modeling of air-driven reed generators for the synthesis of brass and woodwind instrument sounds." In *Proceedings of the Second Brazilian Symposium on Computer Music*, Canela, Brazil, pp. 132–138.

C1 Scavone, G. and Cook, P. R. (1994) "Combined linear and non-linear periodic prediction in calibrating models of musical instruments to recordings." In *Proceedings of the 1994 International Computer Music Conference*, Århus, Denmark, pp. 433–434.

Refereed Published Abstracts

A31 Beaton, D. and Scavone, G. (2021) "Tuning idiophone bar torsional modes with three-dimensional cutaway geometries." 180th Meeting of the Acoustical Society of America, 8–10 June 2021, *Journal of the Acoustical Society of America*, Vol. 149, p. A69.

A30 Scavone, G. (2021) "A tutorial on the transfer matrix method for acoustic modeling." 180th Meeting of the Acoustical Society of America, 8–10 June 2021, *Journal of the Acoustical Society of America*, Vol. 149, p. A93.

A29 Wang, S., Maestre, E. and Scavone, G. (2020) "Two methods for acoustic modeling of the saxophone mouthpiece." Acoustics Virtually Everywhere - 179th Meeting of the Acoustical Society of America, 7–11 December 2020, *Journal of the Acoustical Society of America*, Vol. 148, No. 4, p. 2611.

A28 Wang, S. and Scavone, G. (2020) "Computational aeroacoustics for low Mach number flow using the lattice Boltzmann method." Acoustics Virtually Everywhere - 179th Meeting of the Acoustical Society of America, 7–11 December 2020, *Journal of the Acoustical Society of America*, Vol. 148, No. 4, p. 2694.

A27 Maestre, E., Scavone, G. and Smith, J.O. (2018) "Efficient rendering of saxophone sound by modal synthesis and wave scattering (A)." 176th Meeting of the Acoustical Society of America and 2018 Acoustics Week in Canada, Victoria, BC, Canada, 5-9 November 2018, *Journal of the Acoustical Society of America*, Vol. 144, No. 3, p. 1752, https://doi.org/10.1121/1.5067761, invited presentation.

A26 Fu, L., Scavone, G. and Fritz, C. (2018) "How different strings affect violin qualities (A)." 176th Meeting of the Acoustical Society of America and 2018 Acoustics Week in Canada, Victoria, BC, Canada, 5-9 November 2018, *Journal of the Acoustical Society of America*, Vol. 144, No. 3, p. 1890, https://doi.org/10.1121/1.5068287.

A25 Fu, L., Fritz, C. and Scavone, G. (2018) "Perceptual thresholds of violin soundpost length variation (A)." 176th Meeting of the Acoustical Society of America and 2018 Acoustics Week in Canada, Victoria, BC, Canada, 5-9 November 2018, *Journal of the Acoustical Society of America*, Vol. 144, No. 3, p. 1890, https://doi.org/10.1121/1.5068288.

A24 Pàmies-Vilà, M., Scavone, G., Hofmann, A. and Chatziioannou, V. (2017) "Investigating vocal tract effects during note transitions on the saxophone (A)." 174th Meeting of the Acoustical Society of America, New Orleans, USA, 4-8 December 2017, *Journal of the Acoustical Society of America*, Vol. 142, p. 2545, https://doi.org/10.1121/1.5014304.

A23 Kemp, C. and Scavone, G. (2017) "Microstructural Origin of Creep and Fatigue Behaviour of Arundo Donaxx L Using Nanoindentation, XRD and Internal Friction Measurements." *Meeting of the Materials Research Society*, Boston, MA, USA, 26 November – 1 December 2017.

A22 Kemp, C., Zheng, R., Chromik, R. and Scavone, G. (2017) "Investigating the elastic and creep behaviour of fiber cell-walls in Arundo Donax L using nanoindentation." *Proceedings of the Canadian Materials Science Conference*, 20–23 June 2017, Ottawa, Canada.

A21 Mansour, H., Woodhouse, J. and Scavone, G. (2016) "Accurate time-domain modeling of the bowed string (A)." 172nd Meeting of the Acoustical Society of America, Honolulu, Hawaii, 28 November - 2 December, *Journal of the Acoustical Society of America*, Vol. 140, No. 4, p. 3036, invited presentation.

A20 Maestre, E., Scavone, G. and Smith, J. O. (2016) "Experimental modal analysis/synthesis of saxophone input impedances (A)." 172nd Meeting of the Acoustical Society of America, Honolulu, Hawaii, 28 November - 2 December, *Journal of the Acoustical Society of America*, Vol. 140, No. 4, p. 3092, invited presentation.

A19 Maestre, E., Spa, C., Llimona, Q., Scavone, G. P. and Smith, J.O. (2015) "Playability of a bowed string physical model including finite-width thermal friction and hair dynamics (A)." 170th Meeting of the Acoustical Society of America, Jacksonville, FL, 2–6 November, *Journal of the Acoustical Society of America*, Vol. 138, No. 3, p. 1887, invited presentation.

A18 Kergomard, J., Lefebvre, A. and Scavone, G. (2015) "Analytical model of the transition between cylinder and conical tubes (A)." In *Proceedings of the Third Vienna Talk on Music Acoustics*, 16–19 September, Vienna, Austria, p. 43.

A17 Kemp, C. and Scavone, G. (2014) "Vibrational evaluation of reeds (Arundo Donax L) via hierarchical microstructure analysis." Presented at *The 2014 Symposium on the Acoustics of Poro-Elastic Materials*, 16–18 December, Stockholm, Sweden.

A16 Maestre, E., Scavone, G., and Smith, J. O. (2011) "Modeling of a violin input admittance by direct positioning of second-order resonators (A)." 162nd Meeting of the Acoustical Society of America, San Diego, California, 31 October – 4 November, *Journal of the Acoustical Society of America*, Vol. 130, No. 4, p. 2364, invited presentation.

A15 Saitis, C., Scavone, G., Fritz, C., and Giordano, B. (2010) "Evaluating violin quality: How consistent are skilled players? (A)." 2nd Pan-American/Iberian Meeting on Acoustics, Cancun, Mexico, 15–19 November, *Journal of the Acoustical Society of America*, Vol. 128, No. 4, p. 2284.

A14 Scavone, G., Lefebvre, A., and da Silva, A. (2008) "Evaluating vocal-tract influence in the production of saxophone multiphonics (A)." Joint Meeting of ASA and EAA, Paris, France, 29 June – 4 July, *Journal of the Acoustical Soc. of America*, Vol. 123, No. 5, p. 3123, invited presentation.

A13 Lefebvre, A. and Scavone, G. (2008) "Input impedance measurements of conical acoustic systems using the two-microphone technique (A)." Joint Meeting of ASA and EAA, Paris, France, 29 June – 4 July, *Journal of the Acoustical Soc. of America*, Vol. 123, No. 5, p. 3015 (paper in *Proceedings of the Acoustics '08 Conference*), invited presentation.

A12 da Silva, A. and Scavone, G. (2008) "The influence of the mean flow on the transmission properties of wind instruments (A)." Joint Meeting of ASA and EAA, Paris, France, 29 June – 4 July, *Journal of the Acoustical Soc. of America*, Vol. 123, No. 5, p. 3447.

A11 da Silva, A. and Scavone, G. (2007) "The influence of the acoustic feedback on the fluid-structure interaction within single-reed mouthpieces: A numerical investigation (A)." 154th Meeting of the Acoustical Society of America, New Orleans, Louisiana, 27 November – 1 December, *Journal of the Acoustical Soc. of America*, Vol. 122, No. 5, p. 3056.

A10 Lefebvre, A. and Scavone, G. (2006) "Input impedance measurements of alto saxophones with a calibration error analysis (A)." 152nd Meeting of the Acoustical Society of America, Honolulu, Hawaii, 28 November – 2 December, *Journal of the Acoustical Soc. of America*, Vol. 120, No. 5, p. 3332, invited presentation.

A9 da Silva, A. and Scavone, G. (2006) "A hybrid approach for simulating clarinet-like systems involving the lattice Boltzmann method and a finite difference scheme (A)." 152nd Meeting of the Acoustical Society of America, Honolulu, Hawaii, 28 November – 2 December, *Journal of the Acoustical Soc. of America*, Vol. 120, No. 5, p. 3362, invited presentation.

A8 Scavone, G. (2006) "Real-time measurement/viewing of vocal-tract influence during wind instrument performance (A)." 151st Meeting, Providence, Rhode Island, 5–9 June, *Journal of the Acoustical Soc. of America*, Vol. 119, No. 5, p. 3382.

A7 da Silva, A. R., Depalle, P., and Scavone, G. P. (2006) "Benchmarking the lattice Boltzmann method for the determination of acoustic impedances of axisymmetric waveguides (A)." 151st Meeting, Providence, Rhode Island, 5–9 June, *Journal of the Acoustical Soc. of America*, Vol. 119, No. 5, p. 3383.

A6 Scavone, G. (2005) "A unified digital waveguide (infra)structure for synthesizing wind instrument sounds (A)." 149th Meeting of the Acoustical Society of America, Vancouver, Canada, 16–20 May, *Journal of the Acoustical Soc. of America*, Vol. 117, No. 4, p. 2415, invited presentation.

A5 Scavone, G. and Karjalainen, M. (2001) "Tone hole radiation directivity measurements (A)." 142nd Meeting of the Acoustical Society of America, Ft. Lauderdale, Florida, 3–7 December, *Journal of the Acoustical Soc. of America*, Vol. 110, No. 5, p. 2754.

A4 Scavone, G. (2001) "Time-domain synthesis of conical bore instruments (A)." 142nd Meeting of the Acoustical Society of America, Ft. Lauderdale, Florida, 3–7 December, *Journal of the Acoustical Soc. of America*, Vol. 110, No. 5, p. 2754.

A3 Lakatos, S., Scavone, G., Cook, P. R., and Harbke, C. (2001) "An interactive similarity rating program for large timbre sets (A)." 141st Meeting of the Acoustical Society of America, Chicago, Illinois, 4–8 June, *Journal of the Acoustical Soc. of America*, Vol. 109, No. 5, p. 2468.

A2 Lakatos, S., Scavone, G., and Cook, P. R. (2000) "Knowledge acquisition by listeners in a source learning task using physical models (A)." 139th Meeting of the Acoustical Society of America, 30 May–3 June, *Journal of the Acoustical Soc. of America*, Vol. 107, No. 5, p. 2817, invited presentation.

A1 Scavone, G. and Smith, J. O. (1996) "Digital waveguide modeling of woodwind toneholes (A)." 132nd Meeting of the Acoustical Society of America, Honolulu, Hawaii, 2–6 December 1996, *Journal of the Acoustical Soc. of America*, Vol. 100, No. 4, p. 2812.

GRANTS AWARDED

2023–2025 JOINT INDUSTRIAL RESEARCH AND DEVELOPMENT CONTRACT WITH YAMAHA CORPORATION, *Electric Guitar Analysis and Modeling*, $120,000.

2020–2025 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, DISCOVERY GRANT, *Model-Based Analysis and Design Optimization of Music Instruments*, $195,000.

2019–2020 MITACS ACCELERATE GRANT, with Légère Reeds, *Fatigue characterization of cane and synthetic reeds for alto saxophones*, $15,000.

2019 MITACS ACCELERATE GRANT, with SolidGoldFx, *Physically-informed vinyl record model for real-time guitar effect processing*, $15,000.

2019 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, ENGAGE PLUS GRANT, *Fatigue testing of woodwind reeds*, with Légère Reeds, $25,000.

2018–2021 SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL OF CANADA, INSIGHT GRANT, STREAM B, *Resurrecting the Messiah: Development, evaluation, and performance of a virtual acoustic replica of Stradivari's Messiah violin*, $206,822.

2017–2018 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, ENGAGE PLUS GRANT, *Digital modeling of the piano soundboard*, with Applied Acoustics Systems, $25,000.

2017 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, ENGAGE GRANT, *Piano soundboard measurements and modeling*, with Applied Acoustics Systems, $25,000.

2017 SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL OF CANADA, CONNECTION GRANT, *The 2017 International Symposium on Musical Acoustics*, $24,942.

2015 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, INTERNAL RESEARCH TOOLS AND INSTRUMENTS GRANT, *Measurement tools to assess woodwind reed cane properties*, $22,500.

2015–2020 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, DISCOVERY GRANT, *Vibration and Perceptual Analyses of Music Instruments*, $170,000.

2014 QUEBEC FONDS DE RECHERCHE SOCIÉTÉ ET CULTURE, REGROUPEMENTS STRATÉGIQUES, with Marcelo Wanderley (PI) and 40 others, *Centre Interdisciplinaire de Recherche en Musique, Médias et Technologie (CIRMMT)*, $1,812,000 (one of three primary writers of the grant).

2013 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, ENGAGE GRANT, *Design and development of a quality control system for guitars*, with Godin Guitars, $24,958.

2011–2012 CENTRE FOR INTERDISCIPLINARY RESEARCH IN MUSIC MEDIA AND TECHNOLOGY, STRATEGIC INNOVATION FUND, with Jeremy Cooperstock (PI), Jean Piché, Zack Settel and Adriana Olmos, *Acoustic Sculptures*, $10,000.

2011 MITACS NCE GRANT, with Audiokinetic Inc. and Philippe Depalle, *Analysis-synthesis strategies for simple and robust transformations of complex sounds*, $15,000.

2010–2011 CENTRE FOR INTERDISCIPLINARY RESEARCH IN MUSIC MEDIA AND TECHNOLOGY, STRATEGIC INNOVATION FUND, with Stephen McAdams (PI) and Luc Mongeau, *Psychomechanics of Aerodynamic Sounds*, $10,000.

2010–2013 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, DISCOVERY ACCELERATOR SUPPLEMENTS (DAS), *Modeling & Measurements of Music Instruments*, $120,000, only 100 awarded across Canada.

2010–2015 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, DISCOVERY GRANT, *Modeling & Measurements of Music Instruments*, $140,000.

2010–2011 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, RESEARCH TOOLS AND INSTRUMENTS, *Laboratory Equipment for Acoustic Measurements of Music Instruments*, $79,880.

2009 SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL OF CANADA, AID TO RESEARCH WORKSHOPS AND CONFERENCES IN CANADA, *The 2009 International Computer Music Conference*, $32,625.

2008–2009 CENTRE FOR INTERDISCIPLINARY RESEARCH IN MUSIC MEDIA AND TECHNOLOGY, STRATEGIC INNOVATION FUND, with Larry Lessard (PI) and Luc Mongeau, *Composite Musical Instrument Design*, $10,000.

2007–2008 HEXAGRAM RESEARCH / CREATION PROJECT, with pk langshaw (PI), Ana Cappelluto, Michael Montenaro, and Oana Suteu, *d_verse: transitional algorhythms of gesture*, $73,483.

2006–2008 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, SPECIAL RESEARCH OPPORTUNITY, with Marcelo Wanderley (PI), Stephen McAdams, Vincent Hayward, Philippe Depalle, and Catherine Guastavino, *Haptics, Sound and Interaction in the Design of Enactive Interfaces*, $479,651.

2005–2010 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, DISCOVERY GRANT, *Signal Processing Methods and Tools for Acoustic Modeling of Music Instruments*, $80,000.

2005–2006 NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA, RESEARCH TOOLS AND INSTRUMENTS, *Laboratory Equipment for Research in Signal Processing Methods in Musical Acoustics*, $33,341.

2005–2008 QUEBEC FONDS DE RECHERCHE SUR LA SOCIÉTÉ ET LA CULTURE, PROGRAMME D'APPUI À LA RECHERCHE-CRÉATION, with Denys Bouliane (PI), Sean Ferguson, Philippe Depalle, Marcelo Wanderley, and André Roy, *The Digital Orchestra*, $152,320.

2004–2009 CANADIAN FOUNDATION FOR INNOVATION, NEW OPPORTUNITIES, *Measurement and Development Tools for Computational Acoustic Modeling of Music Instruments and Sounding Objects*, $438,508.

2004–2009 CANADIAN FOUNDATION FOR INNOVATION, INFRASTRUCTURE OPERATION FUND, *Measurement and Development Tools for Computational Acoustic Modeling of Music Instruments and Sounding Objects*, $52,621.

1999–2002 UNITED STATES AIR FORCE, with Stephen Lakatos (PI) and James Beauchamp, *Mental Representation of Auditory Sources*, $592,926 US.

TEACHING EXPERIENCE

2003–current ASSOCIATE/ASSISTANT PROFESSOR, Schulich School of Music, McGill University.
- MUMT 306: Music and Audio Computing I
- MUMT 307: Music and Audio Computing II
- MUMT 502: Special Project in Music Technology
- MUMT 609: Music, Media and Technology Project
- MUMT 618: Seminar on Computational Modeling of Musical Acoustic Systems

2019 INVITED LECTURER, Workshop on Modeling and Measurements of Musical Instruments, Indian Institute of Technology – Dharwad, Dharwad, India, 10–13 December.

2006 INVITED LECTURER, Workshop on Music Controller Technologies, Faculty of Human and Social Sciences, Universidade Nova de Lisboa, Lisbon, Portugal.

1998–2003 LECTURER, MUS 150: Musical Acoustics, CCRMA, Dept. of Music, Stanford University.

2001 VISITING LECTURER, Seminar on Music Controllers, Institut Universitari de l'Audiovisual (IUA), Universitat Pompeu Fabra, Barcelona, Spain.

1999 LECTURER, MUS 320: Introduction to Digital Audio Signal Processing, CCRMA, Dept. of Music, Stanford University.

1995–2003 SAXOPHONE INSTRUCTOR, Dept. of Music, Stanford University.

1992–1994 TEACHING ASSISTANT, CCRMA, Dept. of Music, Stanford University.
- MUS 421: Signal Processing Methods in Musical Acoustics
- MUS 420: Applications of the Fast Fourier Transform (FFT)
- MUS 320: The Discrete Fourier Transform (DFT)
- MUS 154: Introduction to Computer Music
- MUS 21: Musicianship

ACADEMIC & PROFESSIONAL SERVICE

- MUSIC RESEARCH DEPARTMENT CHAIR, Schulich School of Music, McGill University, August 2021 – ongoing.
- MUSIC TECHNOLOGY AREA CHAIR, Schulich School of Music, McGill University, January 2006 – July 2009, September 2015 – July 2017, August 2018 – July 2021.
- BOARD OF DIRECTORS, Centre for Interdisciplinary Research in Music Media and Technology, March 2017 – June 2023.
- SCIENTIFIC COMMITTEE MEMBER, SESSION CHAIR, The International Symposium on Musical Acoustics, Detmold, Germany, 13–17 September 2019.
- LOCAL SCIENTIFIC COMMITTEE MEMBER, The International Conference on Sound and Vibration, Montreal, Canada, 7–11 July 2019.
- CONFERENCE ORGANIZER AND CHAIR, The International Symposium on Musical Acoustics, McGill University, 18–22 June 2017.
- INTERIM DIRECTOR, Centre for Research in Music Media and Technology (CIRMMT), July - September 2011, January - July 2015.
- ASSOCIATE DIRECTOR OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH, Centre for Research in Music Media and Technology (CIRMMT), 2009–2015.
- RESEARCH AXIS CO-LEADER, "Instruments, Devices and Systems" research axis, Centre for Research in Music Media and Technology (CIRMMT), 2007–2016.
- UNIVERSITY TENURE COMMITTEE SENATE, McGill Faculty of Management, 2011–2013.
- ORGANIZING COMMITTEE MEMBER, Joint Conference of the International Congress on Acoustics and the Acoustical Society of America, 2–7 June 2013.
- DIRECTOR AND FOUNDER, *Computational Acoustic Modeling Laboratory (CAML)*, Music Technology, McGill University, January 2004–ongoing.
- CONFERENCE ORGANIZER AND CHAIR, The International Computer Music Conference (ICMC), McGill University, 16–21 August 2009.
- CONFERENCE CO-ORGANIZER, (with Stephen McAdams and Sean Ferguson) of the CIRMMT Music+Technology Incubator III: The Future of Computer Music workshop, 18–20 April 2008.
- CONFERENCE PAPER CHAIR, The International Conference on Auditory Display (ICAD), McGill University, 26–29 June 2007.

- VICE-PRESIDENT FOR THE AMERICAS, 2004–2009, VICE-PRESIDENT FOR CONFERENCES, 2006–2007, International Computer Music Association.
- TECHNICAL COMMITTEE ON MUSICAL ACOUSTICS, The Acoustical Society of America, 1999–ongoing.
- BOARD OF DIRECTORS, The Catgut Acoustical Society Forum, 1996–2008.
- DIRECTOR, The Musical Acoustics Research Library at The Center for Computer Research in Music and Acoustics, Stanford University, 1995–2013.
- SESSION CHAIR, ACOUSTICAL SOCIETY OF AMERICA MEETINGS, 2005, 2006, 2008
- CONFERENCE PROGRAM COMMITTEE MEMBER AND PAPER REVIEWER:
  - International Congress on Sound and Vibration, 2019
  - Vienna Talk Conference, 2015
  - Stockholm Musical Acoustics Conference, 2013
  - IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, 2011
  - International Computer Music Conference, 2004–2008
  - Conference on Digital Audio Effects (DAFx), 2006 and 2008
  - Conference on New Interfaces for Musical Expression, 2006
  - European Signal Processing Conference, 2005
  - Computer Music Modeling and Retrieval Workshop, 2005
- PAPER REVIEWER FOR VARIOUS JOURNALS:
  - *Acta Acustica united with Acustica*, 2009, 2014 (2)
  - *Journal of Sound and Vibration*, 2014
  - *Applied Acoustics*, 2015
  - *EURASIP Journal on Advances in Signal Processing*, 2010, 2012
  - *Journal of the Acoustical Society of America*, 1998 (1), 2002 (2), 2003 (1), 2006 (2), 2007 (1), 2009 (1), 2011 (2), 2013 (2), 2014 (1), 2015 (3), 2016 (4), 2018 (1), 2019 (3)
  - *IEEE Transactions on Speech and Audio Processing*, 1998, 1999, 2000, 2009, 2013 (1 each year)
  - *Computer Music Journal*, 2002, 2011
  - *Software–Practice and Experience*, 2004
- EXTERNAL GRANT REVIEWS:
  - Natural Sciences and Engineering Research Council of Canada (NSERC), 2005 (1), 2006 (3), 2007 (1), 2009 (1), 2011 (1)
  - Engineering and Physical Sciences Research Council, United Kingdom, 2004
- MCGILL UNIVERSITY NSERC PGS-D APPLICATION EXAMINER, Computer Science, Electrical Engineering, Math, Music fields, 40 applications, Fall 2006.
- MUSIC FACULTY COMMITTEES:

- Music Research Area Coordinators (2006–2009, 2015–ongoing)
- Music Research Graduate Sub-Committee (2003–ongoing)
- Physical Development Committee (2006–2007)
- Information Systems and Technology Committee (2004–2006)
- Technical Committee on Network Management and Development (2004–2006)
- Student Progress Committee (2004–2005)

INVITED TALKS

2021 Invited Speaker, "A CAML (McGill University) Research Overview", Equipe Lutheries-Acoustique-Musique, Institut Jean le Rond d'Alembert, Sorbonne Université, Paris, France, 25 January 2021.

2020 Keynote Speaker, "Musical Acoustics Research at McGill University", China National Conference on Sound and Music Technology Conference, North University of China, 5 November 2020.

2019 Invited Speaker, "Musical Acoustics Research at McGill University", Tata Institute of Fundamental Research, Mumbai, India, 23 December 2019.

2019 Invited Speaker, "Musical Acoustics Research at McGill University", Indian Institute of Technology – Bombay, India, 18 December 2019.

2019 Invited Speaker, "Directions in Musical Acoustics Research", Indian Institute of Technology – Dharwad, India, 9 December 2019.

2012 Invited Speaker, "Can we make better musical instruments?", McGill Physics Colloquium, 19 October 2012.

2012 Invited Speaker, "What you should know before you buy that Strad." Mini-Music, Schulich School of Music, McGill University, 1 May 2012.

2011 Invited Presentation, "Computational Modeling of Music Instruments for Analysis, Synthesis, and Design." Hong Kong Polytechnic University, organized by Dr. Randolph Leung, 17 May 2011.

2011 Invited Presentation, "A CAML Research Report." Center for Computer Research in Music and Acoustics, Stanford University, 10 March 2011.

2008 Invited Panelist, "The Hungry Music Monster: How High Performance Computing Will Change the Face of Music", SuperComputing '08 Conference, Austin, TX, 21 November 2008.

2007 Invited Lecture, Sonic Arts Research Centre, Queen's University Belfast, Northern Ireland, 14 March 2007.

2006 Invited Presentation at the *95th Semi-Annual Symposium of the New York State Section of the American Physical Society*, Potsdam, NY, 20 October 2006.

2006 Invited Panelist, Computer Music Research Forum: Current and Future Research Trends in Computer Music, Newstage Festival at Center for Computer Research in Music & Acoustics, Stanford University, 29 April 2006.

2005 Invited Presentation at meeting of Montreal chapter of SIGGRAPH, Societé des Arts Technologiques (SAT), Montreal, Quebec. 22 March 2005.

SELECTED PERFORMANCE EXPERIENCE

2003–ongoing	Chamber performances in northern New York State and the Montreal region with the *Frontier Saxophone Quartet*.
1995–2003	Chamber performances in S.F. Bay Area with the *San Francisco Saxophone Quartet*.
1993–2002	Solo premieres and performances of contemporary works in Western Canada and United States; Buenos Aires, Argentina; and Barcelona, Spain.
1992/1995	Solo performances at International Computer Music Conferences in San Jose, CA, and Banff, AB.
1988–1990	Solo and chamber performances throughout France and Germany with the *International Saxophone Ensemble of Bordeaux*, and in the Northeastern United States with *The Aeolian Saxophone Quartet* and *The New York Chamber Saxophones*.