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DEPARTMENT OF MUSIC, STANFORD UNIVERSITY
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CCRMA PUBLICATIONS
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EDITED BY
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The following is an extensive, though not complete, list of publications from 1970 – 1995 by people from CCRMA. Stanford University Department of Music Technical Reports are available from CCRMA. Publications with notated prices are also available from CCRMA.

- Abel, J. S. and Smith, J. O. (1991). Restoring a clipped signal. In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing, Toronto*, New York. IEEE Press. (\$3.00).
- Bauman, M. L. (1995). The International Digital Electroacoustic Music Archive. In ICMC (1995). (Also contained in STAN-M-91).
- Bauman, M. L., Diener, G. R., and Mathews, M. V. (1991). The International Digital Electroacoustic Music Archive. In ICMC (1991).
- Berger, J., Coifman, R. R., and Goldberg, M. J. (1994). Removing noise from music using local trigonometric bases and wavelet packets. *Journal of the Audio Engineering Society*, 42(10):808–818. (\$3.00).
- Berners, D. P. and Smith, J. O. (1994). On the use of Schroeder's equation in the analytic determination of horn reflectance. In ICMC (1994), pp. 419–422. (Also contained in STAN-M-89).
- Berners, D. P. and Smith, J. O. (1995). Super-spherical wave simulation in flaring horns. In ICMC (1995), pp. 112–113. (Also contained in STAN-M-91).
- Boie, R. and Mathews, M. V. (1989). The radio drum as a synthesizer controller. In ICMC (1989).
- Borish, J. (1983a). An auditorium simulator for home use. Preprint of the Audio Engineering Society 74th Convention, 1983 October 8-12, New York. (\$3.00).
- Borish, J. (1983b). A digital delay line. *The Audio Amateur*, 1/83:7–12. Parts I and II. (\$3.00).
- Borish, J. (1984a). *Electronic Simulation of Auditorium Acoustics*. Ph.D. thesis, Elec. Eng. Dept., Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-18 (\$13.00).
- Borish, J. (1984b). Extension of the image model to arbitrary polyhedra. *Journal of the Acoustical Society of America*, 75(6):1827–1836. (\$3.00).
- Borish, J. and Angel, J. B. (1983). An efficient algorithm for measuring the impulse response using pseudo-random noise. *Journal of the Audio Engineering Society*, 31(7):478–488. (\$3.00).
- Bosi, M. (1990). A real-time system for spatial distribution of sound. Tech. Rep. STAN-M-66, Stanford University Department of Music. (\$4.00).
- Carter, N. P. (1993). A generalized approach to automatic recognition of music scores. Tech. Rep. STAN-M-87, Stanford University Department of Music. (\$7.00).
- Chafe, C. (1985). Bowed string synthesis and its control from a physical model. Tech. Rep. STAN-M-32, Stanford University Department of Music. (Replaced by STAN-M-48).
- Chafe, C. (1989). Simulating performance on a bowed instrument. In J. Pierce and M. V. Mathews, editors, *Current Directions in Computer Music*. MIT Press. Also available as Stanford University Department of Music Technical Report STAN-M-48, May 1988 (\$4.00).
- Chafe, C. (1990a). Pulsed noise and microtransients in physical models of musical instruments. Tech. Rep. STAN-M-65, Stanford University Department of Music. (\$3.00).
- Chafe, C. (1990b). Pulsed noise in self-sustained oscillations of musical instruments. In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing, Albuquerque*, New York. IEEE Press. Also available as Stanford University Department of Music Technical Report STAN-M-61, January 1990 (\$3.00).
- Chafe, C. (1991). Dream machine 1990. *Computer Music Journal*, 15(4):62–64.

- Chafe, C. (1993). Tactile audio feedback. In ICMC (1993). (Also contained in STAN-M-81).
- Chafe, C. (1995a). Adding vortex noise to wind instrument physical models. In ICMC (1995), pp. 57-60. (Also contained in STAN-M-91).
- Chafe, C. (1995b). Adding vortex noise to wind instrument physical models. In *Proceedings of the 1995 International Meeting on Physical Modeling*. Institute for Psychoacoustic and Music Research, University of Thessaloniki, Greece.
- Chafe, C. and Jaffe, D. (1986). Source separation and note identification in polyphonic music. In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing, Tokyo*, New York. IEEE Press. Also available as Stanford University Department of Music Technical Report STAN-M-34 (\$3.00).
- Chafe, C., Jaffe, D., Kashima, K., Mont-Reynaud, B., and Smith, J. (1985a). Techniques for note identification in polyphonic music. In ICMC (1985). Also available as Stanford University Department of Music Technical Report STAN-M-29, April 1986 (\$3.00).
- Chafe, C., Jaffe, D., Kashima, K., Mont-Reynaud, B., and Smith, J. O. (1985b). Techniques for note identification in polyphonic music. In *Proceedings of the 1985 International Computer Music Conference, Burnaby, B.C., Canada*. Computer Music Association.
- Chafe, C., Mont-Reynaud, B., and Rush, L. (1982). Toward an intelligent editor of digital audio: Recognition of musical constructs. *Computer Music Journal*, 6(1):30-41. (\$3.00).
- Chafe, C., Smith, J., and Wood, P. (1986). Current work at CCRMA: An overview. In ICMC (1986).
- Chomyszyn, J. (1994). Loudness of musical sounds in a reverberant environment. In ICMC (1994). (Also contained in STAN-M-89).
- Chomyszyn, J. (1995). *Distance of Sound in Reverberant Fields*. Ph.D. thesis, Department of Music, Stanford University. Available as CCRMA Technical Report STAN-M-94 (\$12.00).
- Chowning, J. M. (1970). The simulation of moving sound sources. Preprint of the Audio Engineering Society 38th Convention, 1970 May 4-7, New York. (\$3.00).
- Chowning, J. M. (1972). The Stanford computer music project.
- Chowning, J. M. (1973). The synthesis of complex audio spectra by means of frequency modulation. *Journal of the Audio Engineering Society*, 21(7):526-534. Reprinted in Curtis Roads and John Strawn, eds. *Foundations of Computer Music*, Cambridge, MA: MIT Press, 1985 (\$3.00).
- Chowning, J. M. (1980). Computer synthesis of the singing voice. In J. Sundberg, editor, *Sound Generation in Winds, Strings, Computers*, pp. 4-13. Stockholm, Sweden: Royal Swedish Academy of Music. (\$3.00).
- Chowning, J. M. (1985). John Chowning on composition. In C. Roads, editor, *Composers and the Computer*. Los Altos, California: William Kaufmann, Inc.
- Chowning, J. M. (1990). Music from machines: Perceptual fusion and auditory perspective - for Ligeti. Tech. Rep. STAN-M-64, Stanford University Department of Music. (\$4.00).
- Chowning, J. M. and Bristow, D. (1986). FM theory and applications.
- Chowning, J. M., Chafe, C., Gordon, J. W., and Wood, P. (1982a). Studio report: The Stanford Center for Computer Research in Music and Acoustics. In ICMC (1982). (\$3.00).
- Chowning, J. M., Grey, J. M., Moorero, J. A., and Rush, L. (1982b). Instrumental timbre and related acoustical phenomena in the perception of music, Final Report. Tech. Rep. STAN-M-11, Stanford University Department of Music. (\$4.00).

- Chowning, J. M., Grey, J. M., Rush, L., and Moorer, J. A. (1974). Computer simulation of music instrument tones in reverberant environments. Tech. Rep. STAN-M-1, Stanford University Department of Music. (\$6.50).
- Chowning, J. M., Grey, J. M., Rush, L., Moorer, J. A., and Smith, L. (1978). Simulation of music instrument tones in reverberant environments, Final Report. Tech. Rep. STAN-M-8, Stanford University Department of Music. (\$3.00).
- Chowning, J. M. and Mont-Reynaud, B. (1986). Intelligent analysis of composite acoustic signals, Final Report. Tech. Rep. STAN-M-36, Stanford University Department of Music. (\$4.00).
- Chowning, J. M., Rush, L., Mont-Reynaud, B., Chafe, C., Schloss, A., and Smith, J. (1984). Intelligent systems for the analysis of digitized acoustic signals, Final Report. Tech. Rep. STAN-M-15, Stanford University Department of Music. (\$6.00).
- Chowning, J. M. and Sheeline, C. (1982). Auditory distance perception under natural sounding conditions, Final Report. Tech. Rep. STAN-M-12, Stanford University Department of Music. (\$5.00).
- Cook, P. R. (1987). Numerical solution of boundary value problems in music acoustics. In *IEEE 1986 Student Papers*. (\$4.00).
- Cook, P. R. (1988a). Implementation of single reed instruments with arbitrary bore shapes using digital waveguide filters. Tech. Rep. STAN-M-50, Stanford University Department of Music. (\$5.00).
- Cook, P. R. (1988b). Reverberation cancellation in musical signals using adaptive filters. Tech. Rep. STAN-M-51, Stanford University Department of Music. Originally published June 1987, (\$5.00).
- Cook, P. R. (1989). Synthesis of the singing voice using a physically parameterized model of the human vocal tract. In ICMC (1989). Also available as Stanford University Department of Music Technical Report STAN-M-57 (\$3.00).
- Cook, P. R. (1990a). *Identification of Control Parameters in an Articulatory Vocal Tract Model, with Applications to the Synthesis of Singing*. Ph.D. thesis, Dept. of Elec. Eng., Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-68 (\$16.00).
- Cook, P. R. (1990b). SPASM: A real-time vocal tract physical model editor, controller, and singer: The companion software synthesis system. In *Proceedings of the Colloquium on Physical Modeling*, Grenoble, France. ACROE.
- Cook, P. R. (1991a). LECTOR: An ecclesiastical latin control language for the spasm/singer instrument. In ICMC (1991). Also available as Stanford University Department of Music Technical Report STAN-M-76 (\$3.00).
- Cook, P. R. (1991b). Noise and aperiodicity in the glottal source: A study of singer voices. In *Twelfth International Congress of Phonetic Sciences*, Aix-en-Provence, France. Also available as Stanford University Department of Music Technical Report STAN-M-75 (\$3.00).
- Cook, P. R. (1991c). Non-linear periodic prediction for on-line identification of oscillator characteristics of woodwind instruments. In ICMC (1991). (Also contained in STAN-M-73).
- Cook, P. R. (1991d). TBone: An interactive waveguide brass instrument synthesis workbench for the next machine. In ICMC (1991), pp. 297-299. (Also contained in STAN-M-73).
- Cook, P. R. (1992). A meta-wind-instrument physical model, and a meta-controller for real time performance control. In ICMC (1992), pp. 273-276. (Also contained in STAN-M-80).
- Cook, P. R. (1995a). A hierarchical system for controlling synthesis by physical modeling. In ICMC (1995), pp. 108-109. (Also contained in STAN-M-91).

- Cook, P. R. (1995*b*). Integration of physical modeling for synthesis and animation. In ICMC (1995), pp. 525–528. (Also contained in STAN-M-91).
- Cook, P. R. (1995*c*). An investigation of singer pitch deviation as a function of pitch and dynamics. In *Thirteenth International Congress of Phonetic Sciences*, pp. 1:202–205. KTH, Stockholm, Sweden.
- Cook, P. R. (1995*d*). Speech and singing synthesis using physical models, some history and future directions. In *Greek Symposium on Physical Models and Applications in Psychoacoustics*, Thessaloniki, Greece. Aristotle University of Thessaloniki.
- Cook, P. R., Kamarotos, D., Diamantopoulos, T., and Philippis, G. (1993*a*). IGDIS (Instrument for Greek Diction and Singing): A Modern Greek Text to Speech/Singing Program for the SPASM/Singer Instrument. In ICMC (1993). (Also contained in STAN-M-81).
- Cook, P. R. and Morrill, D. (1989). Hardware, software, and compositional tools for a real time improvised solo trumpet work. In ICMC (1989). Also available as Stanford University Department of Music Technical Report STAN-M-56 (\$3.00).
- Cook, P. R., Morrill, D., and Smith, J. O. (1993*b*). A MIDI control and performance system for brass instruments. In ICMC (1993). (Also contained in STAN-M-81).
- Deutsch, D. and Pierce, J. (1992). The climate of auditory imagery and music. In D. Reisberg, editor, *Auditory Imagery*. New Jersey: Lawrence Erlbaum Associates.
- Diener, G. (1988*a*). Designing digital instruments with hierarchical waveguide networks. Tech. Rep. STAN-M-49, Stanford University Department of Music. (\$4.00).
- Diener, G. (1988*b*). TTREES: An active data structure for computer music. Tech. Rep. STAN-M-53, Stanford University Department of Music. (\$4.00).
- Diener, G. (1989*a*). Nutation: Structural organization versus graphical generality in a common music notation program. In ICMC (1989). Also available as Stanford University Department of Music Technical Report STAN-M-59, September 1989 (\$3.00).
- Diener, G. (1989*b*). TTREES: A tool for the compositional environment. *Computer Music Journal*, 13(2):77–85. (\$4.00).
- Diener, G. (1990). *Modeling Music Notation: A Three-Dimensional Approach*. Ph.D. thesis, Dept. of Music, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-69 (\$13.00).
- Dyer, L. (1991). *An Object-Oriented Real-Time Simulation of Music Performance Using Interactive Control*. Ph.D. thesis, California Institute of Technology. Available as Stanford University Department of Music Technical Report STAN-M-78 (\$16.00).
- Foster, S., Schloss, W. A., and Rockmore, A. J. (1982). Toward an intelligent editor of digital audio: Signal processing methods. *Computer Music Journal*, 6(1):42–51. (\$3.00).
- Friedlander, B. and Smith, J. O. (1984). Analysis and performance evaluation of an adaptive notch filter. *IEEE Transactions on Information Theory*, 30(2):283–295. (\$3.00).
- Garnett, G. E. (1987). Modeling piano sound using waveguide digital filtering techniques. In ICMC (1987). (\$3.00).
- Gillespie, B. (1992*a*). Dynamical modeling of the grand piano action. In ICMC (1992). (Also contained in STAN-M-80).
- Gillespie, B. (1992*b*). The touchback keyboard. In ICMC (1992). (Also contained in STAN-M-80).
- Gillespie, B. (1994). Virtual piano action: Design and implementation. In ICMC (1994). (Also contained in STAN-M-89).

- Gillespie, B. and O'Modhrain, S. (1995). The moose: A haptic user interface for blind persons with application to the digital sound studio. Tech. Rep. STAN-M-95, Stanford University Department of Music. (\$5.00).
- Gordon, J. W. (1984). *Perception of Attack Transients in Musical Tones*. Ph.D. thesis, Dept. of Music, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-17 (\$9.00).
- Gordon, J. W. (1985). System architecture for computer music. *Computing Surveys*, 17(2):192-233. (\$4.00).
- Gordon, J. W. (1987a). The perceptual attack time of musical tones. *Journal of the Acoustical Society of America*, 82(1):88-105. (\$3.00).
- Gordon, J. W. (1987b). The role of psychoacoustics in computer music. Tech. Rep. STAN-M-38, Stanford University Department of Music. (\$4.00).
- Gordon, J. W. and Grey, J. M. (1978). Perception of spectral modifications on orchestral instrument tones. *Computer Music Journal*, 2(1):24-31. (\$3.00).
- Gordon, J. W. and Smith, J. O. (1985). A sine generation algorithm for VLSI applications. In ICMC (1985). (\$3.00).
- Gordon, J. W. and Strawn, J. (1985). An introduction to the phase vocoder. In J. Strawn, editor, *Digital Audio Signal Processing: An Anthology*. Los Altos, CA: William Kaufmann. Also available as Stanford University Department of Music Technical Report STAN-M-55, February 1987 (\$6.00).
- Grey, J. M. (1975). *An Exploration of Musical Timbre*. Ph.D. thesis, Dept. of Psychology, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-2 (\$10.00).
- Grey, J. M. (1977a). Experiments in the perception of instrumental timbre. In *Bulletin of the Council for Research in Music Education*. Invited Paper.
- Grey, J. M. (1977b). Multidimensional perceptual scaling of musical timbres. *Journal of the Acoustical Society of America*, 61(5):1270-1277. (\$3.00).
- Grey, J. M. (1978). Timbre discrimination in musical patterns. *Journal of the Acoustical Society of America*, 64(2):467-472. (\$3.00).
- Grey, J. M. and Gordon, J. W. (1978). Perceptual effects of spectral modifications on musical timbres. *Journal of the Acoustical Society of America*, 63(5):1493-1500. (\$3.00).
- Grey, J. M. and Moorer, J. A. (1977). Perceptual evaluation of synthetic musical instrument tones. *Journal of the Acoustical Society of America*, 62(2):454-462. (\$3.00).
- Hirschman, S. (1991). *Digital Waveguide Modeling and Simulation of Reed Woodwind Instruments*. Engineering thesis, Elec. Eng. Dept., Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-72 (\$12.00).
- Hirschman, S., Cook, P. R., and Smith, J. O. (1991). Digital waveguide modeling and simulation of reed woodwind instruments: An interactive development environment on the next computer. In ICMC (1991). (Also contained in STAN-M-73).
- Holland, S. (1994). Learning about harmony with harmony space: an overview. Tech. Rep. STAN-M-88, Stanford University Department of Music. (\$4.00).
- ICMC (1982). *Proceedings of the 1982 International Computer Music Conference, Venice, Italy*. International Computer Music Association.
- ICMC (1983). *Proceedings of the 1983 International Computer Music Conference, Eastman School of Music, Rochester, NY*. International Computer Music Association.

- ICMC (1984). *Proceedings of the 1984 International Computer Music Conference, Paris*. International Computer Music Association.
- ICMC (1985). *Proceedings of the 1985 International Computer Music Conference, Burnaby, B.C., Canada*. International Computer Music Association.
- ICMC (1986). *Proceedings of the 1986 International Computer Music Conference, The Hague, Netherlands*. International Computer Music Association.
- ICMC (1987). *Proceedings of the 1987 International Computer Music Conference, Champaign-Urbana, Illinois*. International Computer Music Association.
- ICMC (1989). *Proceedings of the 1989 International Computer Music Conference, Columbus, Ohio*. International Computer Music Association.
- ICMC (1990). *Proceedings of the 1990 International Computer Music Conference, Glasgow, England*. International Computer Music Association.
- ICMC (1991). *Proceedings of the 1991 International Computer Music Conference, Montreal, Canada*. International Computer Music Association.
- ICMC (1992). *Proceedings of the 1992 International Computer Music Conference, San Jose, CA*. International Computer Music Association.
- ICMC (1993). *Proceedings of the 1993 International Computer Music Conference, Tokyo, Japan*. International Computer Music Association.
- ICMC (1994). *Proceedings of the 1994 International Computer Music Conference, Århus, Denmark*. International Computer Music Association.
- ICMC (1995). *Proceedings of the 1995 International Computer Music Conference, Banff, Canada*. International Computer Music Association.
- Jaffe, D. A. (1983a). Ensemble timing in computer music. In ICMC (1983). Also available as Stanford University Department of Music Technical Report STAN-M-23 (\$3.00).
- Jaffe, D. A. (1983b). A synthesizer debugger. In ICMC (1983), pp. 110–112.
- Jaffe, D. A. (1987). Spectrum analysis tutorial - Parts I and II. *Computer Music Journal*, 11(2 and 3):9–24. Also available as Stanford University Department of Music Technical Report STAN-M-33, Revised 1987 (\$6.00).
- Jaffe, D. A. (1989). An overview of the NeXT Music Kit. In ICMC (1989), pp. 135–138.
- Jaffe, D. A. (1990). Efficient dynamic resource management on multiple DSPs, as implemented in the NeXT Music Kit. In ICMC (1990), pp. 188–190.
- Jaffe, D. A. (1991). Musical and extra-musical applications of the NeXT Music Kit. In ICMC (1991), pp. 521–524.
- Jaffe, D. A. (1993). The computer-extended ensemble. *LULU, Revista de teorías y técnicas musicales*, 1(2).
- Jaffe, D. A. (1995). Ten criteria for evaluating synthesis and processing techniques. *Computer Music Journal*, 19(1):76–87.
- Jaffe, D. A. and Boynton, L. (1989). An overview of the sound and music kits for the NeXT computer. *Computer Music Journal*, 14(2):48–55. (\$3.00).
- Jaffe, D. A. and Schloss, W. A. (1992). The making of wildlife. In ICMC (1992).
- Jaffe, D. A. and Schloss, W. A. (1994a). The computer-extended ensemble. *Computer Music Journal*, 18(2):78–86.

- Jaffe, D. A. and Schloss, W. A. (1994*b*). A virtual piano concerto – coupling of the Mathews/Boie Radio Drum and the Yamaha Disklavier grand piano in “The Seven Wonders of the Ancient World”. In ICMC (1994). (Also contained in STAN-M-89).
- Jaffe, D. A. and Smith, J. O. (1983). Extensions of the Karplus-Strong plucked string algorithm. *Computer Music Journal*, 7(2):56–69. (\$3.00).
- Jaffe, D. A. and Smith, J. O. (1993). Real time sound processing and synthesis on multiple DSPs using the Music Kit and the Ariel QuintProcessor. In ICMC (1993).
- Jaffe, D. A. and Smith, J. O. (1995). Performance expression in commuted waveguide synthesis of bowed strings. In ICMC (1995), pp. 343–346. (Also contained in STAN-M-91).
- Jaffe, D. A., Smith, J. O., and Porcaro, N. (1994). The Music Kit on a PC. In *Proceedings of the First Brazilian Symposium on Computer Music, XIV Congress of the Brazilian Society of Computation, Caxambu*, pp. 63–69, Canela, Brazil. Informática UFRGS.
- Karplus, K. and Strong, A. (1983). Digital synthesis of plucked-string and drum timbres. *Computer Music Journal*, 7(2):43–55. (\$3.00).
- Keisler, D. (1986). Software for real-time microtonal control. In ICMC (1986). (\$3.00).
- Keisler, D. (1987). History and principles of microtonal keyboards. *Computer Music Journal*, 11(1):18–28. (\$5.00).
- Keisler, D. (1988). History and principles of microtonal keyboard design. Tech. Rep. STAN-M-45, Stanford University Department of Music. (\$5.00).
- Keisler, D. (1991). *Psychoacoustic Factors in Musical Intonation: Beats, Interval Tuning, and Inharmonicity*. Ph.D. thesis, Dept. of Music, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-70 (\$16.00).
- Knapp, R. and Lusted, H. (1988). A real-time digital signal processing system for bioelectric control of music. In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing*, vol. 5, pp. 2556–2558. IEEE Press. (\$3.00).
- Knapp, R. and Lusted, H. (1990). Bioelectric controller for computer music applications. *Computer Music Journal*, 14(1):42–47. (\$3.00).
- Lakatos, S. (1991*a*). Recognition of complex auditory-spatial patterns. Tech. Rep. STAN-M-71, Stanford University Department of Music. (\$3.00).
- Lakatos, S. (1991*b*). Temporal constraints on apparent motion in auditory space. Tech. Rep. STAN-M-74, Stanford University Department of Music. (\$3.00).
- LeBrun, M. (1977*a*). A derivation of the spectrum of FM with a complex modulating wave. *Computer Music Journal*, 1(4):51–52. Reprinted in Curtis Roads and John Strawn, editors. *Foundations of Computer Music*. Cambridge, MA: MIT Press, 1985 (\$3.00).
- LeBrun, M. (1977*b*). Notes on microcomputer music. *Computer Music Journal*, 1(2):30–35. (\$3.00).
- LeBrun, M. (1979). Digital waveshaping synthesis. *Journal of the Audio Engineering Society*, 27(4):250–266. (\$3.00).
- Levitin, D. J. (1992). Absolute memory for musical pitch: More than the melody lingers on. Tech. Rep. STAN-M-79, Stanford University Department of Music. (\$5.00).
- Levitin, D. J. and Cook, P. R. (1995). Absolute memory for musical tempo. In *Audio Engineering Society Convention*. Audio Engineering Society.
- Lo, D. Y.-O. (1986). Techniques for timbral interpolation. In ICMC (1986). (\$3.00).

- Lo, D. Y.-O. (1987). *Towards a Theory of Timbre*. Ph.D. thesis, Dept. of Hearing and Speech, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-42 (\$18.00).
- Lopez-Lezcano, F. (1994). A dynamic spatial sound movement kit. In ICMC (1994). (Also contained in STAN-M-89).
- Lopez-Lezcano, F. (1995). PadMaster: an improvisation environment for real time performance. In ICMC (1995). (Also contained in STAN-M-91).
- Loy, G. D. (1981). Notes on the implementation of MUSBOX: a compiler for the systems concepts digital synthesizer. *Computer Music Journal*, 5(1):34–50. (\$3.00).
- Lusted, H. and Knapp, R. (1988). Biomuse: Musical performance generated by human bioelectric signals. *Journal of the Acoustical Society of America*, 84, supplement 1:179. (\$3.00).
- Lusted, H. and Knapp, R. (1989). Music produced by human bioelectric signals. *Presented at the AAAS 155th National Meeting, San Francisco*, p. 139. (\$3.00).
- Lusted, H. and Knapp, R. (1990). Musical performance by the handicapped generated from bioelectric signals. *Journal of the Acoustical Society of America*, 87, supplement 1:41. (\$3.00).
- Marks, J. and Polito, J. (1986). Modeling piano tones. In ICMC (1986). (\$3.00).
- Mathews, M. and Kohut, J. (1973). Electronic simulation of violin resonances. *Journal of the Acoustical Society of America*, 53(6):1620–1626.
- Mathews, M. V. (1988). Pickups for the vibrations of violin and guitar strings using piezoelectric bimorphic bender elements. Tech. Rep. STAN-M-54, Stanford University Department of Music. (\$3.00).
- Mathews, M. V. (1991). The radio baton and conductor program, or: Pitch, the most important and least expressive part of music. *Computer Music Journal*, 15(4):37–46.
- Mathews, M. V. and Barr, D. (1988). The conductor program and mechanical baton. Tech. Rep. STAN-M-47, Stanford University Department of Music. (\$3.00).
- Mathews, M. V. and Pierce, J. R. (1987a). The acquisition of musical percepts with a new scale. Tech. Rep. STAN-M-40, Stanford University Department of Music. (\$3.00).
- Mathews, M. V. and Pierce, J. R. (1987b). The computer as a musical instrument. *Scientific American*, 256(2):90–97. Also available as Stanford University Department of Music Technical Report STAN-M-37 (\$3.00).
- McAdams, S. (1984). *Spectral Fusion, Spectral Parsing and the Formation of Auditory Images*. Ph.D. thesis, Dept. of Hearing and Speech, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-22 (\$23.00).
- McAdams, S. and Bregman, A. (1979). Hearing musical streams. *Computer Music Journal*, 3(4):26–43. Reprinted in Curtis Roads and John Strawn, eds. *Foundations of Computer Music*, Cambridge, MA: MIT Press, 1985 (\$3.00).
- McNabb, M. (1981). Dreamsong: The composition. *Computer Music Journal*, 5(4):36–53. (\$3.00).
- McNabb, M. (1986). Computer music: Some aesthetic considerations. In S. Emmerson, editor, *The Language of Electroacoustic Music*. New York: Harwood Academic Publishers.
- Mellinger, D. K. (1991). *Event Formation and Separation in Musical Sound*. Ph.D. thesis, Dept. of Computer Science, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-77 (\$23.00).
- Mellinger, D. K., Garnett, G. E., and Mont-Reynaud, B. (1989). Virtual digital signal processing in an object-oriented environment. *Computer Music Journal*, 13(2):71–76. (\$3.00).

- Mellinger, D. K. and Mont-Reynaud, B. (1991). Sound explorer: A workbench for investigating source separation. In *ICMC (1991)*, pp. 90-94.
- Mont-Reynaud, B. (1985). Problem-solving strategies in a music transcription system. In *IJCAI Proceedings, Los Angeles, CA*, pp. 916-918. (\$3.00).
- Mont-Reynaud, B. (1987). Pattern recognition problems in music. Presented at the AI East Conference in Atlantic City.
- Mont-Reynaud, B. and Dannenberg, R. (1987). Following an improvisation in real time. In *ICMC (1987)*, pp. 241-248. (\$3.00).
- Mont-Reynaud, B. and Goldstein, M. (1985). On finding rhythmic patterns in musical lines. In *ICMC (1985)*, pp. 391-397. (\$3.00).
- Mont-Reynaud, B. and Gresset, E. (1990). PRISM: Pattern recognition in sound and music. In *ICMC (1990)*, pp. 153-155.
- Mont-Reynaud, B. and Mellinger, D. K. (1988). Source separation by frequency co-modulation. In *Proceedings of the First International Conference on Music Perception and Cognition, Kyoto, Japan*. (\$3.00).
- Moore, F. R. (1977a). *Real Time Interactive Computer Music Synthesis*. Ph.D. thesis, Dept. of Elec. Eng., Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-7 (\$11.00).
- Moore, F. R. (1977b). Table lookup noise for sinusoidal digital oscillators. *Computer Music Journal*, 1(2):26-29. Reprinted in Curtis Roads and John Strawn, eds. *Foundations of Computer Music*, Cambridge, MA: MIT Press, 1985 (\$3.00).
- Moore, F. R. (1978a). An introduction to the mathematics of digital signal processing, Part I. *Computer Music Journal*, 2(1):38-47. Reprinted in John Strawn, ed. *Digital Signal Processing: An Anthology*, Los Altos, CA: William Kaufmann, Inc. 1985 (\$3.00).
- Moore, F. R. (1978b). An introduction to the mathematics of digital signal processing, Part II. *Computer Music Journal*, 2(2):38-60. Reprinted in John Strawn, ed. *Digital Signal Processing: An Anthology*, Los Altos, CA: William Kaufmann, Inc. 1985 (\$3.00).
- Moorer, J. A. (1972). Music and computer composition. *Communications of the ACM*, 15(2). (\$3.00).
- Moorer, J. A. (1973). The heterodyne filter as a tool for analysis of transient waveforms. Tech. Rep. STAN-CS-73-379, Stanford University Computer Science Department. (\$5.00).
- Moorer, J. A. (1974). The optimum comb method of pitch period analysis of continuous digitized speech. In *IEEE Transactions on Acoustics, Speech, Signal Processing*, vol. ASSP-22(5), pp. 330-338. (\$3.00).
- Moorer, J. A. (1975a). On the loudness of complex, time-variant tones. Tech. Rep. STAN-M-4, Stanford University Department of Music. (\$4.00).
- Moorer, J. A. (1975b). *On the Segmentation and Analysis of Continuous Musical Sound by Digital Computer*. Ph.D. thesis, Dept. of Computer Science, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-3 (\$11.00).
- Moorer, J. A. (1976). The synthesis of complex audio spectra by means of discrete summation formulae. *Journal of the Audio Engineering Society*, 24:717-727. Also available as Stanford University Department of Music Technical Report STAN-M-5 (\$3.00).
- Moorer, J. A. (1977a). On the transcription of musical sound by computer. *Computer Music Journal*, 1(4):32-38. (\$3.00).

- Moorer, J. A. (1977b). Signal processing aspects of computer music – a survey. *Proceedings of the IEEE*, 65(8):1108–1137. Reprinted in John Strawn, ed. *Digital Audio Signal Processing: An Anthology*. Los Altos, CA: William Kaufmann, 1985. (\$3.00).
- Moorer, J. A. (1978a). How does a computer make music? *Computer Music Journal*, 2(1):32–37. (\$3.00).
- Moorer, J. A. (1978b). The use of the phase vocoder in computer music applications. *Journal of the Audio Engineering Society*, 26(1/2):42–45. (\$3.00).
- Moorer, J. A. (1979a). About this reverberation business. *Computer Music Journal*, 3(2):13–18. Reprinted in Curtis Roads and John Strawn, eds. *Foundations of Computer Music*. Cambridge, MA: MIT Press, 1985. (\$3.00).
- Moorer, J. A. (1979b). Data reduction techniques for high-quality digitized audio. Preprint of the Audio Engineering Society 62nd Convention, 1979 March 13-16, Brussels, Belgium. (\$3.00).
- Moorer, J. A. (1979c). The digital coding of high-quality musical sound. *Journal of the Audio Engineering Society*, 27(9):657–666. (\$3.00).
- Moorer, J. A. (1979d). The use of linear prediction of speech in computer music applications. *Journal of the Audio Engineering Society*, 27(3):134–140. (\$3.00).
- Moorer, J. A. (1981). Synthesizers I have known and loved. *Computer Music Journal*, 5(1):4–12. (\$3.00).
- Moorer, J. A. (1983). The manifold joys of conformal mapping: Applications to digital filtering in the studio. *Journal of the Audio Engineering Society*, 31(11):826–841.
- Moorer, J. A., Grey, J. M., and Snell, J. (1977a). Lexicon of analyzed tones. Part 1: A violin tone. *Computer Music Journal*, 1(2):39–45. (\$3.00).
- Moorer, J. A., Grey, J. M., and Snell, J. (1977b). Lexicon of analyzed tones. Part 2: Clarinet and oboe tones. *Computer Music Journal*, 1(3):12–29. (\$3.00).
- Moorer, J. A., Grey, J. M., and Snell, J. (1978). Lexicon of analyzed tones. part 3: The trumpet. *Computer Music Journal*, 2(2):23–31. (\$3.00).
- Moreno, E. I. (1992a). The existence of unexplored dimensions of pitch: Expanded chromas. In ICMC (1992).
- Moreno, E. I. (1992b). *Expanded Tunings in Contemporary Music: Theoretical Innovations and Practical Applications*. Lewiston, New York: The Edwin Mellen Press.
- Moreno, E. I. (1994). A visual model for embedded chroma spaces. In ICMC (1994). (Also contained in STAN-M-89).
- Moreno, E. I. (1995). *Embedding Equal Pitch Spaces and The Question of Expanded Chromas: An Experimental Approach*. Ph.D. thesis, Dept. of Music, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-93 (\$12.00).
- Muller, C. (1990). Measurement of reverberation time in the variable reverberation time room. Tech. Rep. TR-A-0076, ATR Auditory and Visual Perception Research Laboratories, Kyoto, Japan. (\$3.00).
- Oppenheim, D. V. (1986). The need for essential improvements in the machine-composer interface used for the composition of electroacoustic computer music. In ICMC (1986).
- Oppenheim, D. V. (1987). The PGG environment for music composition - a proposal. In ICMC (1987).
- Oppenheim, D. V. (1989). DMIX: An environment for composition. In ICMC (1989). Also available as Stanford University Department of Music Technical Report STAN-M-60 (\$3.00) [Replaced by STAN-M-83].

- Oppenheim, D. V. (1991). SHADOW: An object-oriented performance-system for the DMIX environment. In ICMC (1991).
- Oppenheim, D. V. (1992). Compositional tools for adding expression to music. In ICMC (1992). Also available as Stanford University Department of Music Technical Report STAN-M-82, October 1993 (\$3.00).
- Oppenheim, D. V. (1993a). DMIX - a multi faceted environment for composing and performing computer music: its philosophy, design, and implementation. In *Fourth Biennial Arts and Technology Symposium*. Also available as Stanford University Department of Music Technical Report STAN-M-83, October 1993 (\$3.00) [Supersedes STAN-M-60].
- Oppenheim, D. V. (1993b). Slappability: A new metaphor for human computer interaction. In *Music Education: An Artificial Intelligence Perspective*. London: Springer Verlag. Also available as Stanford University Department of Music Technical Report STAN-M-85, October 1993 (\$3.00).
- Oppenheim, D. V., Anderson, T., and Kirk, R. (1993). Perceptually meaningful parameters: An object-oriented technique for their specification and interpretation. In ICMC (1993).
- Pierce, J. R. (1990). Rate, place, and pitch with tonebursts. *Music Perception*, 7(3):205–212. (\$3.00).
- Pierce, J. R. (1991a). Periodicity and pitch perception. *Journal of the Acoustical Society of America*, 90:1889–1893.
- Pierce, J. R. (1991b). Surprises and music. *Computer Music Journal*, 15(4):31.
- Pierce, J. R. (1992). *The Science of Musical Sound*. New York: W.H. Freeman.
- Pierce, J. R. (1995). Fletcher's discoveries concerning pitch. *Journal of the Acoustical Society of America*, 98(6):3019–3020. (\$3.00).
- Pierce, J. R. and Schubert, E. D. (1987). High level factors and the musical saliency of auditory phenomena. Tech. Rep. STAN-M-41, Stanford University Department of Music. (\$3.00).
- Porcaro, N., Scandalis, P., Smith, J. O., Jaffe, D. A., and Stilson, T. (1995). SynthBuilder—a graphical real-time synthesis, processing and performance system. In ICMC (1995), pp. 61–62. (Also contained in STAN-M-91).
- Putnam, W., Rocchesso, D., and Smith, J. O. (1995). A numerical investigation of the invertibility of room transfer functions. In *Proceedings of the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, NY*, New York. IEEE Press.
- Roads, C. and Strawn, J., editors (1985). *Foundations of Computer Music*. Cambridge, MA: MIT Press.
- Rocchesso, D. (1995). The ball within the box: A sound-processing metaphor. *Computer Music Journal*, 19(4):47–57.
- Rocchesso, D. and Smith, J. O. (1994). Circulant feedback delay networks for sound synthesis and processing. In ICMC (1994), pp. 378–381. (Also contained in STAN-M-89).
- Samson, P. R. (1980). A general-purpose digital synthesizer. *Journal of the Audio Engineering Society*, 28(3):106–113. (\$3.00).
- Scavone, G. P. (1995a). 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*, pp. 132–138, Canela, Brazil. Informática UFRGS.
- Scavone, G. P. (1995b). Digital waveguide modeling of the non-linear excitation of single-reed woodwind instruments. In ICMC (1995), pp. 521–524. (Also contained in STAN-M-91).
- Scavone, G. P. and Cook, P. R. (1994). Combined linear and non-linear prediction in calibrating models of musical instruments to recordings. In ICMC (1994), pp. 433–434. (Also contained in STAN-M-89).

- Schloss, A. W. (1985). *On the Automatic Transcription of Percussive Music - From Acoustic Signal to High-Level Analysis*. Ph.D. thesis, Department of Hearing and Speech, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-27 (\$10.00).
- Schottstaedt, B. (1977). The simulation of natural instrument tones using frequency modulation with a complex modulating wave. *Computer Music Journal*, 1(4):46-50. Reprinted in Curtis Roads and John Strawn, eds. *Foundations of Computer Music*, Cambridge, MA: MIT Press, 1985 (\$3.00).
- Schottstaedt, B. (1983). Pla: A composer's idea of a language. *Computer Music Journal*, 7(1):11-20. (\$3.00).
- Schottstaedt, B. (1984a). Automatic species counterpoint. Tech. Rep. STAN-M-19, Stanford University Department of Music. (\$7.00).
- Schottstaedt, B. (1984b). PLA - a tutorial and reference manual. Tech. Rep. STAN-M-24, Stanford University Department of Music. (\$9.00).
- Schottstaedt, B. (1994). CLM: Music V meets Common Lisp. *Computer Music Journal*, 18(2):30-37.
- Schumacher, R. T. and Chafe, C. (1990). Characterization of aperiodicity in nearly periodic signals. In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing, Albuquerque, New York*. IEEE Press. Also available as Stanford University Department of Music Technical Report STAN-M-62, December 1989 (\$3.00).
- Serra, X. (1986). A computer model for bar percussion instruments. In ICMC (1986).
- Serra, X. (1988). An environment for the analysis, transformation and resynthesis of music sounds. Tech. Rep. STAN-M-52, Stanford University Department of Music. (\$4.00).
- Serra, X. (1989). *A System for Sound Analysis/Transformation/Synthesis Based on a Deterministic Plus Stochastic Decomposition*. Ph.D. thesis, Department of Music, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-58 (\$15.00).
- Serra, X. and Smith, J. O. (1990). Spectral modeling synthesis: A sound analysis/synthesis system based on a deterministic plus stochastic decomposition. *Computer Music Journal*, 14(4):12-24.
- Serra, X. and Smith, J. O. (1991). Sound-sheet examples for a sound analysis/synthesis system based on a deterministic plus stochastic decomposition. *Computer Music Journal*, 15(1):86-87.
- Serra, X. and Wood, P., editors (1988). *OVERVIEW, Center for Computer Research in Music and Acoustics (Recent Work)*, Stanford University Department of Music Technical Report STAN-M-44. (out of print).
- Sheeline, C. (1982). *An Investigation of the Effects of Direct and Reverberant Signal Interactions on Auditory Distance Perception*. Ph.D. thesis, Department of Hearing and Speech, Stanford University. Available as Stanford University Department of Music Technical Report STAN-M-13 (\$14.00).
- Smith, J. O. (1981). Digital Signal Processing Committee, IEEE Acoustics, Speech and Signal Processing Society: Programs for Digital Signal Processing (Book Review). *Computer Music Journal*, 5(2):62-66. (\$3.00).
- Smith, J. O. (1982). Synthesis of bowed strings. In ICMC (1982). (\$3.50).
- Smith, J. O. (1983a). Spectral pre-processing for audio digital filter design. In ICMC (1983). (\$3.00).
- Smith, J. O. (1983b). *Techniques for Digital Filter Design and System Identification with Application to the Violin*. Ph.D. thesis, Elec. Eng. Dept., Stanford University. Also available as Stanford University Department of Music Technical Report STAN-M-14 (\$18.00).
- Smith, J. O. (1984). An allpass approach to digital phasing and flanging. In ICMC (1984). Also available as Stanford University Department of Music Technical Report STAN-M-21 (\$3.00).

- Smith, J. O. (1985a). Introduction to digital filter theory. In J. Strawn, editor, *Digital Audio Signal Processing: An Anthology*. Los Altos, California: William Kaufmann, Inc. Also available as Stanford University Department of Music Technical Report STAN-M-20, April 1985 (\$5.00).
- Smith, J. O. (1985b). A new approach to digital reverberation using closed waveguide networks. In ICMC (1985), pp. 47–53. Also available as Stanford University Department of Music Technical Report STAN-M-31 (\$3.00).
- Smith, J. O. (1986a). Efficient simulation of the reed-bore and bow-string mechanisms. In ICMC (1986), pp. 275–280. (Also contained in STAN-M-39).
- Smith, J. O. (1986b). Elimination of limit cycles and overflow oscillations in time-varying lattice and ladder digital filters. Tech. Rep. STAN-M-35, Stanford University Department of Music. Short version published in *Proc. IEEE Conf. on Circuits and Systems, San Jose*, May 1986. Full version also available in STAN-M-39.
- Smith, J. O. (1987a). Music applications of digital waveguides. Tech. Rep. STAN-M-39, Stanford University Department of Music. (A compendium containing four related papers and presentation overheads on digital waveguide reverberation, synthesis, and filtering - \$8.00).
- Smith, J. O. (1987b). Waveguide filter tutorial. In ICMC (1987), pp. 9–16. (\$3.00).
- Smith, J. O. (1989a). Computer music on the DSP56001. In *Proceedings of the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, NY*, New York. IEEE Press.
- Smith, J. O. (1989b). Unit-generator implementation on the NeXT DSP Chip. In *Proceedings of the 1989 International Computer Music Conference, Columbus, Ohio*, pp. 303–306. Computer Music Association.
- Smith, J. O. (1990). Efficient yet accurate models for strings and air columns using sparse lumping of distributed losses and dispersion. In *Proceedings of the Colloquium on Physical Modeling, Grenoble, France*. ACROE. Essentially superseded by *Physical Modeling Using Digital Waveguides, 1992*. Also available as Stanford University Department of Music Technical Report STAN-M-67, December 1990 (\$4.00).
- Smith, J. O. (1991a). Viewpoints on the history of digital synthesis. In ICMC (1991), pp. 1–10. (Also contained in STAN-M-73).
- Smith, J. O. (1991b). Waveguide simulation of non-cylindrical acoustic tubes. In ICMC (1991), pp. 304–307. (Also contained in STAN-M-73).
- Smith, J. O. (1992a). Bandlimited interpolation – introduction and algorithm. In *Invited paper, Acoustical Society of America Conference, New Orleans*. (Expanded version of the 1984 paper with Phil Gossett).
- Smith, J. O. (1992b). The Kaiser window. Mathematica notebook for Music 420 (EE 265), available online as <ftp://ccrma-ftp.stanford.edu/pub/DSP/Tutorials/Kaiser.ma.Z>.
- Smith, J. O. (1992c). Physical modeling using digital waveguides. *Computer Music Journal*, 16(4):74–91. Special issue: Physical Modeling of Musical Instruments, Part I.
- Smith, J. O. (1992d). Rectangular, Hanning, and Hamming window transforms. Mathematica notebook for Music 420 (EE 265), available online as <ftp://ccrma-ftp.stanford.edu/pub/DSP/Tutorials/GenHamming.ma.Z>.
- Smith, J. O. (1992e). The window method for digital filter design. Mathematica notebook for Music 420 (EE 265), available online as <ftp://ccrma-ftp.stanford.edu/pub/DSP/Tutorials/Kaiser.ma.Z>.
- Smith, J. O. (1993a). Efficient synthesis of stringed musical instruments. In ICMC (1993), pp. 64–71. (Also contained in STAN-M-81).
- Smith, J. O. (1993b). Use of commutativity in simplifying acoustic simulations. In *Proceedings of the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, NY*, New York. IEEE Press.

- Smith, J. O. (1995a). Digital waveguide models for sound synthesis based on musical acoustics. In *Proceedings of the 15th International Conference on Acoustics (ICA-95)*, Trondheim, Norway.
- Smith, J. O. (1995b). Discrete-time modeling of acoustic systems. *CCRMA Associates Conference*. Monograph in progress.
- Smith, J. O. (1995c). Music synthesis techniques based on musical acoustics research. In *Proc. Int. Meeting on Physical Modeling in Music, Physical Modeling of Ancient Instruments, and Applications of Physical Modeling in Psychoacoustics*, Thessaloniki, Greece.
- Smith, J. O. and Abel, J. S. (1987). Closed-form least-squares location estimation from range-difference measurements. *IEEE Transactions on Acoustics, Speech, Signal Processing*, 35(12):1661–1669.
- Smith, J. O. and Abel, J. S. (1995). The bark bilinear transform. In *Proceedings of the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*, New Paltz, NY, New York. IEEE Press.
- Smith, J. O. and Allen, J. B. (1981). Variable bandwidth adaptive delta modulation. *Bell System Technical Journal*, 60(5):719–737. (\$3.00).
- Smith, J. O. and Angell, J. B. (1982). A constant-gain digital resonator tuned by a single coefficient. *Computer Music Journal*, 6(4):36–40. (\$3.00).
- Smith, J. O. and Cook, P. R. (1992). The second-order digital waveguide oscillator. In *ICMC (1992)*, pp. 150–153. (Also contained in STAN-M-80).
- Smith, J. O. and Friedlander, B. (1985). Adaptive interpolated time-delay estimation. *IEEE Transactions on Aerospace and Electronic Systems*, 21(2):180–199.
- Smith, J. O. and Friedlander, B. (1984a). Estimation of multipath delay. In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing*, San Diego, pp. 15.9.1–15.9.4, New York. IEEE Press.
- Smith, J. O. and Friedlander, B. (1984b). Extensions of the constant modulus algorithm. *Asilomar-84*.
- Smith, J. O. and Friedlander, B. (1985a). Adaptive multipath delay estimation. *IEEE Transactions on Acoustics, Speech, Signal Processing*, 33(4):812–822.
- Smith, J. O. and Friedlander, B. (1985b). Global convergence of the constant modulus algorithm. *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing*, Tampa, Florida, pp. 30.5.1–30.5.4.
- Smith, J. O., Gordon, J., Jaffe, D., Mont-Reynaud, B., Schloss, A., Schottstaedt, W., and Wieneke, P. (1982). Recent research in computer music at CCRMA. In *CmpCon Proc.*, pp. 35–39. IEEE Computer Soc., San Francisco, CA.
- Smith, J. O. and Gossett, P. (1984). A flexible sampling-rate conversion method. In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing*, San Diego, vol. 2, pp. 19.4.1–19.4.2, New York. IEEE Press. An expanded tutorial based on this paper is available in the directory <ftp://ccrma-ftp.stanford.edu/pub/DSP/Tutorials/>, file `BandlimitedInterpolation.eps.Z`, as is C code for implementing the technique in directory <ftp://ccrma-ftp.stanford.edu/pub/NeXT/>, file `resample-n.m.tar.Z`, where n.m denotes the latest version number. Note that the C source code is included so it is easy to port it to any platform supporting the C language.
- Smith, J. O., Gutknecht, M., and Trefethen, L. N. (1983). The Caratheodory-Fejer (CF) method for recursive digital filter design. *IEEE Transactions on Acoustics, Speech, Signal Processing*, 31(6):1417–1426. (\$3.00).
- Smith, J. O., Jaffe, D. A., and Boynton, L. (1989). Music system architecture on the NeXT computer. *Audio Engineering Society Convention*.

- Smith, J. O. and Rocchesso, D. (1994). Connections between feedback delay networks and waveguide networks for digital reverberation. In ICMC (1994), pp. 376–377. (Also contained in STAN-M-89).
- Smith, J. O. and Serra, X. (1987). PARSHL: A program for the analysis/synthesis of inharmonic sounds based on a sinusoidal representation. In ICMC (1987). Also available as Stanford Music Department Technical Report STAN-M-43.
- Smith, J. O. and Van Duyne, S. A. (1995a). Commuted piano synthesis. In ICMC (1995), pp. 319–326. (Also contained in STAN-M-91).
- Smith, J. O. and Van Duyne, S. A. (1995b). Overview of the commuted piano synthesis technique. In *Proceedings of the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, NY, New York*. IEEE Press.
- Smith, J. O. and Van Duyne, S. A. (1995c). Recent results in piano synthesis via physical modeling. In *Proceedings of the International Symposium on Musical Acoustics (ISMA-95), Dourdan, France*, pp. 503–509, France. Société Française d'Acoustique.
- Smith, L. C. (1972). Score, a musician's approach to computer music. *Journal of the Audio Engineering Society*.
- Smith, L. C. (1973a). Editing and printing music by computer. *J. of Music Theory*. (\$3.00).
- Smith, L. C. (1973b). Henry Cowell's *Rhythmicana*. *Yearbook for Inter-American Research*. (\$3.00).
- STAN-M-73 (1991). *CCRMA Papers on Physical Modeling from the 1991 International Computer Music Conference, Montreal, Canada*. Stanford University Department of Music Technical Report, (\$6.00).
- STAN-M-80 (1992). *Physical Modeling and Signal Processing: CCRMA Papers Presented at the 1992 International Computer Music Conference, San Jose, CA*. Stanford University Department of Music Technical Report, (\$6.00).
- STAN-M-81 (1993). *CCRMA Papers Presented at the 1993 International Computer Music Conference, Tokyo, Japan*. Stanford University Department of Music Technical Report, (\$5.00).
- STAN-M-89 (1994). *CCRMA Papers Presented at the 1994 International Computer Music Conference, Århus, Denmark*. Stanford University Department of Music Technical Report, (\$6.00).
- STAN-M-91 (1995). *CCRMA Papers Presented at the 1995 International Computer Music Conference, Banff, Canada*. Stanford University Department of Music Technical Report, (\$6.00).
- Stilson, T. (1995a). Forward-going wave extraction in acoustic tubes. In ICMC (1995), pp. 517–520. (Also contained in STAN-M-91).
- Stilson, T. (1995b). General weirdness with the Karplus-Strong string. In ICMC (1995), pp. 110–111. (Also contained in STAN-M-91).
- Strawn, J. (1980). Approximation and syntactic analysis of amplitude and frequency functions for digital sound synthesis. *Computer Music Journal*, 4(3):3–24. (\$5.00).
- Strawn, J. (1982). Research on timbre and musical contexts at CCRMA. In ICMC (1982). (\$3.00).
- Strawn, J. (1985a). *Digital Audio Signal Processing: An Anthology*. Los Altos, CA: William Kaufmann.
- Strawn, J. (1985b). Digital sound recording and synthesis. In C. Roads and J. Strawn, editors, *Computer Music Tutorial*. Cambridge, MA: The MIT Press. (\$3.00).
- Strawn, J. (1985c). Editing time-varying spectra. Audio Engineering Society 78th Convention, 1985 May 3–6, Anaheim, CA. (\$3.00).
- Strawn, J. (1985d). *Modeling Musical Transitions*. Ph.D. thesis, Department of Music, Stanford University. Available as CCRMA Technical Report STAN-M-26 (\$18.00).

- Strawn, J. (1985*e*). Orchestral instruments: Analysis of performed transitions. Preprint of the Audio Engineering Society 78th Convention, 1985 May 3-6, Anaheim, CA. (\$3.00).
- Tanaka, A. (1992). Implementing quadraphonic audio on the NeXT. In ICMC (1992). (Also contained in STAN-M-80).
- Taube, H. (1989). Common Music: A music composition language in Common Lisp and CLOS. In ICMC (1989). Also available as Stanford University Department of Music Technical Report STAN-M-63 (\$3.00) and in *Proc. of EUROPAL 90*, Cambridge, England, March 1990.
- Taube, H. (1993). Stella: Persistent score representation and score editing in Common Music. *Computer Music Journal*, 17(4).
- Taube, H. and Kunze, T. (1995). Capella: A graphical interface for algorithmic composition. In ICMC (1995), pp. 377-380. (Also contained in STAN-M-91).
- Trautmann, S. D. (1995*a*). A physical string model with a twist. In ICMC (1995). (Also contained in STAN-M-91).
- Trautmann, S. D. (1995*b*). *Some Aspects of Applying Psychoacoustic Principles to Soundfield Reconstruction*. Ph.D. thesis, Department of Music, Stanford University. Available as CCRMA Technical Report STAN-M-96 (\$13.00).
- Trautmann, S. D. (1995*c*). Toward a CLM sound localization instrument employing modified wavefront reconstruction. In ICMC (1995). (Also contained in STAN-M-91).
- Van Duyne, S. and Smith, J. O. (1993*a*). Physical modeling with the 2-D digital waveguide mesh. In ICMC (1993), pp. 40-47. (Also contained in STAN-M-81).
- Van Duyne, S. A. (1992). Low piano tones: Modeling nearly harmonic spectra with regions of FM. In ICMC (1992). (Also contained in STAN-M-80).
- Van Duyne, S. A., Pierce, J. R., and Smith, J. O. (1994). Traveling-wave implementation of a lossless mode-coupling filter and the wave digital hammer. In ICMC (1994), pp. 411-418. (Also contained in STAN-M-89. Presented at the Conference of the Acoustical Society of America, November, 1994).
- Van Duyne, S. A. and Smith, J. O. (1992). Implementation of a variable pick-up point on a waveguide string model with FM/AM applications. In ICMC (1992), pp. 154-157. (Also contained in STAN-M-80).
- Van Duyne, S. A. and Smith, J. O. (1993*b*). The 2-D digital waveguide mesh. In *Proceedings of the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*, New Paltz, NY, New York. IEEE Press.
- Van Duyne, S. A. and Smith, J. O. (1994). A simplified approach to modeling dispersion caused by stiffness in strings and plates. In ICMC (1994), pp. 407-410. (Also contained in STAN-M-89).
- Van Duyne, S. A. and Smith, J. O. (1995*a*). Developments for the commuted piano. In ICMC (1995), pp. 335-343. (Also contained in STAN-M-91).
- Van Duyne, S. A. and Smith, J. O. (1995*b*). The tetrahedral waveguide mesh: Multiply-free computation of wave propagation in free space. In *Proceedings of the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*, New Paltz, NY, New York. IEEE Press.
- Wang, A. L.-C. (1994). *Instantaneous and Frequency-Warped Signal Processing Techniques for Auditory Source Separation*. Ph.D. thesis, Department of Elec. Eng., Stanford University. Available as CCRMA Technical Report STAN-M-86 (\$18.00).
- Wang, A. L.-C. and Smith, J. O. (1994). On fast FIR filters implemented as tail-canceling IIR filters. Tech. Rep. STAN-M-90, Stanford University Department of Music. (\$3.00).
- Wood, P. (1991). Recollections with John Robinson Pierce. *Computer Music Journal*, 15(4):17-28.

- Wood, P., editor (1992). *CCRMA Research Overview*, Stanford University Department of Music Technical Report. (out of print).
- Wood, P. and Duyne, S. V., editors (1994). *Overview, September 1994*, Stanford University Department of Music Technical Report STAN-M-97. (\$6.00).
- Zicarelli, D. (1991). Communicating with meaningless numbers. *Computer Music Journal*, 15(4):74-77.