

# Curriculum Vitae

Christopher David Chafe

October 31, 2015

**(bold text highlights the period Sep-14 thru Aug-15 for Faculty Annual Report)**

*Date and Place of Birth:* 5 December, 1952, Berne, Switzerland (U.S. Citizen)

*Addresses:* Center for Computer Research in Music and Acoustics (CCRMA), Dept. of Music, Stanford University, Stanford, CA 94305. tel: (650)723-4971 x320  
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## EDUCATION

DMA, Music Composition, 1983, Stanford University. MA, Music Composition, 1977, U.C. San Diego. BA, Music, 1974, Antioch College.

## HONORS AND AWARDS

Stanford Bio-X grant, Synthetic Aesthetics Residency, 2010, iCore Professorship 2008, NSF Grant, 2008, OTL Birdseed Funding 2003, Media X Award 2003, Net Challenge Prize, IEEE / ACM SC2000, Best Paper, ISORA 2000, NSF Research Award, 1999-2001, Scholarship, Banff Centre for the Arts, Sum. 2000, Stanford President's Funding Award for Internet2 Application Development, Scholarship, Banff Centre for the Arts, 1998-99, Hewlett Faculty Grant, 1997-98, William H. and Frances Green Faculty Fellow, 1995-96, ASCAP Composer's Special Award, 1992-present, Composer's Fellowship, National Endowment for the Arts, 1994-95, Arts International Grant, 1991, Honorable Mention, Bourges Electronic Music Competition, Bourges, Fr., 1984, Composer's Fellowship, National Endowment for the Arts, 1983, Composition Prize, Bourges Electronic Music Competition, Bourges, Fr., 1982, Alice Hayne Fellowship, UCSD, 1976, Associate Fellow, Center for Music Experiment, UCSD, 1975, Regent's Fellowship, UCSD, 1974.

## WORK EXPERIENCE

*2004 to present:* Duca Family Professor, Stanford University.

*1995 to present:* Director, CCRMA.

*2008 to 2009:* iCore Visiting Professor, The Banff Centre.

*2001 to 2003:* Professor of Music, Stanford University.

*1998-99, Sum. 00:* Resident Artist, Banff Centre for the Arts.

*Summer, 1998:* Lecturer, Zentrum für Kunst und Medientechnologie, Karlsruhe.

*1994-97:* Chair, Department of Music.

1994 to 2001: Associate Professor of Music, Stanford University.  
1992-93: Acting Director, CCRMA.  
1989-1994: Associate Professor of Music (Research).  
1985-1989: Senior Research Associate, Lecturer, Technical Coordinator, CCRMA.  
1984-1985: Staff Research Associate (NSF support), Lecturer, CCRMA.  
1983-1984: Chercheur Informatique, IRCAM (physical modelling, real-time additive synthesis and taught the annual summer course.  
Spring, 1983: Lecturer, School of Science, San Francisco State University.  
1983: Staff Research Associate (NSF support), CCRMA.  
1978-1982: Student Research Associate (NSF support), Instructor Summer Workshops, CCRMA.

## PUBLICATIONS

**C. Chafe, “(The) Speaking of Characters, Musically-Speaking” in *Live Electronic Music: Composition, Performance, Routledge, (forthcoming, 2015)***

**C. Chafe, “Polartide” *Computer Music J.* 38(4): Sound and Video Anthology, 2014**

C. Chafe, M. Leguia “Synthetic Sound from Synthetic Biology” in *Synthetic Aesthetics*, MIT Press, 2014

C. Chafe “Síntesis Vocal por FM Libre de ‘Clicks’ ” in *Proc. of the Cong. Internacional de Ciencia y Tecnología Musical*, Buenos Aires, (2013)

C. Chafe “Glitch Free FM Vocal Synthesis” *Proc. of the Stockholm Music Acoustics Conf.*, Stockholm, 2013

C. Chafe, J. Granzow “Internet Rooms from Internet Audio” in *Proc. of the Int. Cong. Acoustics*, Montreal, (2013)

C. Chafe “Living with Net Lag” *Proc. of the AES 43rd Intl. Conf.*, Pohang, S. Korea, 2011

C. Chafe, J-P. Caceres, M. Gurevich, “Effect of temporal separation on synchronization in rhythmic performance” *Perception* 39(7): 982-992, 2010

J-P. Caceres, C. Chafe, “JackTrip/SoundWIRE Meets Server Farm” *Computer Music J.* 34(3): 29-34, 2010

J-P. Caceres, C. Chafe, “JackTrip: Under the Hood of an Engine for Network Audio” *J. New Music Res.* 2010

N. Dairabi, P. Svensson, C. Chafe “Toward an algorithm to simulate ensemble rhythmic interaction based on quantifiable strategy functions” *Proc. of the AES 129th Conf.*, SF, 2010

- M. Kolar, J. Abel, R. Kolte, P. Huang, J. Rick, J. Smith, C. Chafe "A Modular Computational Acoustic Model of Ancient Chavín de Huántar, Perú" *Proc. of the 2nd Pan American/Iberian Meeting on Acoustics Conf.*, Cancun, 2010
- P. Cook, J. Abel, M. Kolar, P. Huang, J. Huopaniemi, J. Rick, C. Chafe, J. Chowning "Acoustic Analysis of the Chavín Pututus (Strombus galeatus marine shell trumpets)" *Proc. of the 2nd Pan American/Iberian Meeting on Acoustics Conf.*, Cancun, 2010
- C. Chafe, "Audio Setup and the Future of the Telematic Medium" in *Telematic Music: Six Perspectives Leonardo Music J.*, 19, 2009
- C. Chafe, "Tapping into the Internet as a Musical / Acoustical Medium" *Contemporary Music Review*. 28(4,5): 413-420, 2009
- S. Devarajan, D. Levitin, C. Chafe, J. Berger, V. Menon, "Neural Dynamics of Event Segmentation in Music: Converging Evidence for Dissociable Ventral and Dorsal Networks", *Neuron*, 2007
- J. Kojs, S. Serafin, C. Chafe, "Cyberinstruments via Physical Modeling Synthesis: Compositional Applications" *Leonardo Music J.*, 17, 2007
- C. Chafe, "Oxygen Flute, A Computer Music Instrument that Grows" *J. New Music Res.*, 34:(3), 2005
- C. Chafe, M. Gurevich "Network Time Delay and Ensemble Accuracy: Effects of Latency, Asymmetry" *Proc. of the AES 117th Conf.*, SF, 2004
- M.Gurevich, C. Chafe, G. Leslie, S. Tyan "Simulation of Networked Ensemble Performance with Varying Time Delays: Characterization of Ensemble Accuracy" *Proc. Intl. Computer Music Conf.*, Miami, 2004
- T. Leonard, C. Chafe, "New Movements in Digital Music" *HorizonZero*, 15, Banff, 2004
- C. Chafe, "Autonomous Virtuosity" for Roger Reynolds 70th, program contribution, UCSD, 2004
- C. Chafe, M. Gurevich, et al. "Effect of Time Delay on Ensemble Accuracy" *Proc. 2004 Intl. Soc. Musical Acoustics*, Nara, 2004
- C. Chafe, "Physical Model Synthesis in Music Composition" *Proc. 2004 Intl. Congress Acoustics*, Kyoto, 2004
- C. Chafe, "Distributed Internet Reverberation for Audio Collaboration" *Proc. of the AES 24th Int. Conf.*, Banff, 2003
- C. Chafe, "Oxygen Flute, A Computer Music Instrument that Grows" *Proc. 2002 Keihanna Multimedia Festival*, Kyoto, 2002

- C. Chafe, S. Wilson, D. Walling, "Physical Model Synthesis with Application to Internet Acoustics," *Proc. 2002 Intl. Conference on Acoustics, Speech and Signal Processing*, Orlando, 2002
- C. Chafe, R. Leisikow, "Levels of Temporal Resolution in Sonification of Network Performance," *Proc. 2001 Intl. Conference on Auditory Display*, Helsinki, 2001
- C. Chafe, et al., "A Simplified Approach to High Quality Music and Sound Over IP," *Proc. COST-G6 Conference on Digital Audio Effects (DAFx-00)*, Verona, 2000.
- S. O'Modhrain, C. Chafe, "The Performer-Instrument Interaction: A Sensory Motor Perspective," *Proc. Intl. Computer Music Conf.* Berlin, 2000.
- S. O'Modhrain, S. Serafin, C. Chafe, et al., "Influence of Attack Parameters on the Playability of a Virtual Bowed Instrument: Tuning the Model," *Proc. Intl. Computer Music Conf.* Berlin, 2000.
- S. O'Modhrain, C. Chafe, "Incorporating Haptic Feedback into Interfaces for Music Applications," *Proc. Intl. Soc. Robotics and Automation*. Maui, 2000. (best paper award)
- C. Chafe, "Round Table," in M. Wanderley and M. Battier, eds. *Trends in Gestural Control of Music*. (electronic book) IRCAM, Paris, 2000.
- C. Chafe, "Interplay(er) Machines," *Contemporary Music Review*. Harwood Academic Publ. London, 18(3): 87-95, 1999 (plus accompanying compact disc with excerpts of 3 compositions)
- C. Chafe, "A Short History of Digital Synthesis by Composers in the U.S.A.," *Creativité & Informatique*. Recontres Musicales Pluridisciplinaires, Lyon, March, 1999.
- C. Chafe, "Vicarious Synthesizers: Listening for Timbres," *Proc. Intl. Symp. on Musical Acoustics*. Leavenworth, WA, June, 1998.
- C. Chafe, "Statistical Pattern Recognition for Prediction of Solo Piano Performance," *Proc. Intl. Computer Music Conf.* Thessaloniki, Sept. 1997.
- C. Chafe, "On Collaborations, Documents and Talking to a TV," *Proc. 1997 Symposium on Science, Art, Internet, MultiMedia*. Mozarteum, Salzburg
- C. Chafe, S. O'Modhrain "Musical Muscle Memory and the Haptic Display of Performance Nuance," *Proc. Intl. Computer Music Conf.* Hong Kong, Sept. 1996. [STAN-M-99]
- C. Chafe, "Adding Vortex Noise to Wind Instrument Physical Models," *Proc. Intl. Computer Music Conf.* Banff, Sept. 1995. [STAN-M-91]

also in, *Proc. 1995 Intl. Meeting on Physical Modeling*, Institute for Psychoacoustic and Music Research, U. of Thessaloniki, July, 1995.

C. Chafe, "Pulsed Noise and Micro-Transients in Physical Models," *Proceedings of the 1990 Physical Modeling Colloquium*, Grenoble, Editions de la Maison des Sciences de l'Homme, 1994, Paris. [STAN-M-65]

C. Chafe, "Tactile Audio Feedback," *Proc. Intl. Computer Music Conf.* Tokyo, Sept. 1993. [STAN-M-81]

C. Chafe, "Dream Machine '90," *Computer Music Journal*. 15(4): 62-64, 1991.

C. Chafe, "Pulsed Noise in Self-Sustained Oscillations of Musical Instruments," *Proc. IEEE Intl. Conf. Acoust. Sp. and Sig. Proc.* Albuquerque, April 1990. [STAN-M-61]

R. Schumacher and C. Chafe, "Detection of Aperiodicity in Nearly Periodic Signals," *Proc. IEEE Intl. Conf. Acoust. Sp. and Sig. Proc.* Albuquerque, April 1990.

C. Chafe, "Computer Music: New Models for Synthesis and Analysis," *International Symposium, Computer World*. Kobe, October 1988.

C. Chafe, "Simulating Performance on a Bowed Instrument," in M. Mathews, ed., *Current Directions in Computer Music*. MIT Press, Cambridge, MA, 1989. (plus accompanying compact disc with sound examples) [STAN-M-48]

C. Chafe and D. Jaffe, "Source Separation and Note Identification in Polyphonic Music," *Proc. IEEE Conf. Acoust. Sp. and Sig. Proc.*, Tokyo, 2: 25.6.1-25.6.4, April 1986. [STAN-M-34]

C. Chafe (text consultant), "A New Definition of Control," in *Input/Output*. by the editors of Time-Life Books, Alexandria, VA, 1986.

C. Chafe, "Bowed String Synthesis and Its Control From a Physical Model," 1986. [STAN-M-32]

C. Chafe, J. Smith and P. Wood, "Current Work at CCRMA: An Overview," *Proc. Intl. Computer Music Conf.* The Hague, 1986.

C. Chafe, D. Jaffe, et al. "Techniques for Note Identification in Polyphonic Music," *Proc. Intl. Computer Music Conf.* Vancouver, 1985. [STAN-M-29]

C. Chafe, B. Mont-Reynaud and L. Rush, "Toward an Intelligent Editor of Digital Audio: Recognition of Musical Constructs," *Computer Music Journal* 6(1): 30-41, 1982.

C. Chafe, "A Comparison of Timbres Inherent in Traditional Violoncello Playing" *Catgut Acoustical Society Newsletter*, 29: 19-22, 1978.

Music Dept. Tech. Rep. Stanford U. are noted as [STAN-M-xx], these CCRMA pubs. are available by request to [info@ccrma.stanford.edu](mailto:info@ccrma.stanford.edu) or exist online at <http://www-ccrma.stanford.edu>

## PATENTS

**No. 14/301,270, issued 23-Oct-14, "Glitch-Free Frequency Modulation Synthesis of Sounds"**

(pending) No. 61/914,567, filed 11-Dec-13, "Method of Sonifying Signals Obtained from a Living Subject"

(pending) No. 61/663,506, filed 22-Jun-12, "Determining Location Information of Microseismic Events During Hydraulic Fracturing"

(pending) No. 61/653,370, filed 30-May-12, "Method for listening to brain electrical activity"

No. 7,522,734, issued 21-May-09, "Distributed Acoustical Reverberation for Audio Collaboration"

No. 6,801,939, issued 14-May-04 "Method for Evaluating Quality of Service of a Digital Network Connection"

No. 5,508,473, issued 16-Apr-96, "Music Synthesizer and Method for Simulating Period Synchronous Noise Associated with Air Flows in Wind Instruments"

No. 5,157,216, issued 20-Oct-92, "Musical Synthesizer System and Method Using Pulsed Noise for Simulating the Noise Component of Musical Tones"

## LECTURES, MASTER CLASSES

(\* = invited, + = juried submission, ^ = paper listed above)

2015: \* **Keynote, U of Tromsø**

\* **UNAM**

\* **U of Edinburgh**

\* **U of Calgary, Music Dept.**

\* **U of Calgary, CS Dept.**

\* **U de Manizales**

\* **Stanford, MediaX**

\* **NIH, Bethesda**

\* **Cal Arts**

\* **Stanford LASER**

\* **UC Santa Barbara**

2014: \* **Stanford LASER**

\* **UCB**

\* **U of London Inst. of Phil.**

\* **U of London AHRC**

\* **U of Durham**

\* **U of Guanajuato**

\* **Shanghai Conservatory**

\* **Recombinations, Stanford**

\* **Cal. Inst. Arts**

\* **Mcgill U.**

\* **Keynote, Sennheiser, SF**

2013: \* **Townsend Humanities, UCB**

\* **U of VA**

\* **Conservatory U of Buenos Aires**

- \* World Opera Projec Workshop, Struer, DK
- + Stockholm Musical Acoustics Conf
- + Deep Listening Conf EMPAC, RPI
- \* Acoustical Soc. Am., SF
- \* Zero1 Garage, San Jose
- \* Music and Brain, Stanford
- \* Keynote, Peabody Conservatory
- 2012: \*NASA Ames
- \* MIT
- \* Memorial U.
- \* Leonardo / Cont'g Studies, Stanford
- \* U. Calgary (lecture, workshop)
- \* The Banff Centre
- 2011: \*^ ASA, San Diego
- \*^ AES, Pohang, S. Korea
- \*AES SF
- \* SB 5.0 satellite workshop Synthetic Aesthetics, Stanford
- \* ECog, Stanford
- \* LA Women in Music
- \* UWMilwaukee
- 2010: \* BioX, Stanford
- \* Memorial U., St. John's
- \* Alumni Panel, UCSD
- \* WAFUNIF, UN, NYC
- \* Recording Expo, W. LA Music
- \* Workshop, AES, SF
- \* Parvizi Lab, SUMC
- \* 01SJ, San Jose
- \* Keynote SUMC Radiology Retreat, Asilomar
- \* Keynote Sounding Out 5, Bournemouth, UK
- \* 01SJ, San Jose
- \* Network Performance Summer Workshop, CCRMA
- \* ASCAP EXPO, LA
- \* ResoNations Panel, NYU
- \* Kava Gallery, Berkeley
- \* Keynote YoungCT Forum, Gangwan-do, Korea.
- 2009: \* Music in Glob. Vill. Conf., Budapest
- \* Leonardo Laser / SETI, Mtn. View
- \* Leading Matters, NYC
- \* Pasadena Art College of Design
- \* UofMont.
- \* eNTERFACE 09 Genoa,
- \*+^ SMC 2009, Porto
- \* Coll. Mus. Soc., E. Wash. U.
- \* UofCalgary
- \* UofCalgary

- 2008: \* Artech 2008, Porto  
 \* EMPAC Opening, RPI  
 \* Festival Musica Nova, USP, Sao Paulo  
 \* UCR  
 \* World Opera Project, Tromso, Norway  
 \* ANET Summit II, Banff  
 \* UCB/CNM Leonardo
- 2007: \* Northwestern U. Int'l. Soc. Imp. Music (via teleconf.)  
 \* New Orleans Acoust. Soc. Am. Mtg.  
 \* UCB/CNM 070707  
 \* KAIST Int'l. Symp. Culture Tech. (Seoul)  
 \* UCSB  
 \* SARC, Belfast (via teleconf.)  
 \* NYU
- 2006: \* Stanford Homecoming Panel  
 \* 121st Audio Eng. Soc., SF  
 \* SFMOMA  
 \* Stanford Historical Society  
 \* Visiones Sonoras, Morelia, MX  
 \* Museo Nacional Reina Sofia, Madrid  
 \* UCR  
 \* UCSC  
 \* NCKU, Tainan  
 \* NTNU, Taipei x2  
 \* USC
- 2005: \* UGuanajuato, MX  
 \* UCB  
 \* Acad. Mus., Wroclaw, PL
- 2004: \* U. Simon Bolivar, Caracas  
 \* C. National de las Artes, Mexico, DF  
 +^ AES, SF  
 \* Network Audio Summit, Banff  
 \* Taiwan  
 \* Stanford Kyoto Ctr.  
 +^ ICA, Kyoto  
 +^ISMA, Nara
- 2003: \* MediaX SU  
 \* Taegu, KR  
 \* Townsend Ctr., UCB  
 +^ AES, Banff  
 \* PC Forum, Phoenix
- 2002: \* UNM ATC Lecture  
 \* MediaX SU  
 +^ Keihanna Multimedia Festival, Kyoto  
 \*^ IEEE/ICASSP Orlando  
 \* 020202 UC Berkeley



- 2001: + DAFX 2001, "Oxygen Flute" by video, Limerick  
 \* Acoustical Soc. of America, "Evolution of Teaching and Res. at CCRMA"  
 + IEEE / ACM SC2001, bandwidth challenge, Denver  
 \* San Jose Museum of Art  
 \*^ ICAD 2001, Helsinki  
 \* CENIC, Corp. for Educ. Network Initiatives in Cal., "Art \& Sci. Meet at CCRMA"  
 \* U.C. Berkeley Multimedia Research Center, "SoundWIRE"  
 \* SF Calif. Coll. of Arts & Crafts, "Ping Interactive Music Installation"  
 \* Natl. Academy of Sciences, "Digital Music Making"
- 2000: + IEEE / ACM SC2000, research exhibit, Dallas ("Most Captivating Application" Net Challenge Prize)  
 \*U of Suwon, Korea  
 \* UO  
 \* UW  
 \* UNM lecture and composition master class  
 \* AES Alberta Chapter  
 \* New Media Institute, Banff
- 1999: \* Ecole Nationale de Musique de Villeurbaine, composition master class  
 \*^ Recontres Musicales Pluridisciplinaire, Lyon  
 CelloFest 99, Banff  
 Audio Associates Program, Banff  
 Sync or Stream, Banff
- 1998: \* Centro Ricerche Musicali, Rome  
 \* Summer Workshop, ZKM, Karlsruhe  
 \*^ ISMA 98, Leavenworth, WA
- 1997: \* U. of Quilmes, Buenos Aires  
 \* U. of Moron, Buenos Aires  
 +^ Intl. Comp. Music Conf., Thessaloniki, also tutorial lecture  
 \*^ Symposium on Science, Art, Internet, MultiMedia, Mozarteum, Salzburg
- 1996: \* Pomona College, Pomona  
 +\* Intl. Comp. Music Conf., Hong Kong, also tutorial lecture
- 1995: \* II Brazilian Symposium on Computer Music, Canela-RS, Brazil, keynote  
 \*^ U. of Thessaloniki  
 \* National U., San Diego  
 \* Hong Kong Academy for the Performing Arts, composer-in-residence  
 +^ Intl. Comp. Music Conf., Banff
- 1994: \* ACREQ, Montreal  
 Peabody Cons., Baltimore, Sidney M. Friedberg Lecturer in Music and Psych.  
 UVA
- 1993: + Acoustical Society of America, Denver  
 \* Centro Ricordi, Buenos Aires  
 \* LIPM, Buenos Aires  
 +^ Intl. Comp. Music Conf., Waseda U., Tokyo  
 Hochschule für Music und Darstellende Kunst, Vienna  
 \* UW, Systematic Musicology and Composition Seminars

- \* CNMAT, UCB New Music Technology Series
  - 1992: \* Intl. Meeting of Modern and Contemporary Music, Parma, Italy
    - \* Friends of Hopkins Marine Station, Monterey, CA
    - \* Composer's Forum, UIUC
    - \* Intl. Computer Music Colloq., Delphi, Greece
    - \* New Hampshire Music Festival Composer's Conf., Plymouth, NH
    - \* IEEE Computer Science Section, San Francisco
  - 1991: + IEEE Workshop on Speech and Signal Processing, New Paltz, NY
    - \* TCU, Ft. Worth
    - SMU, Dallas
    - \* UNT, composer-in-residence
  - 1990: +^ Northwestern U.
    - \*^ Physical Modeling Colloquium, Grenoble
    - +^ IEEE Intl. Conf. Acoustics, Speech and Signal Processing, Albuquerque
  - 1989: \* Acoustical Society of America, Bay Area Chapter
    - \* Seminar on Academic Computing, Snowmass
    - \* Association for Women in Computing, San Francisco
  - 1988: \*^ Artificial Intelligence and Multimedia Knowledge Processing, Kobe
    - Music Dept., Clark U.
    - \* Society of Motion Picture and Television Engineers, San Francisco Chapter
  - 1986: Computer Science Dept., UCB
    - Music Dept., Clark U.
    - +^ IEEE Intl. Conf. Acoustics, Speech and Signal Processing, Tokyo
  - 1985: +^ Intl. Comp. Music Conf., Vancouver
  - 1984: \* Dept. of Music, Northwestern U.
    - IRCAM, Paris
    - +^ Intl. Comp. Music Conf., Paris
  - 1982: + Intl. Comp. Music Conf., Venice
    - \* San Francisco Institute of Music and Drama, Composer Speaks Series
    - Center for Music Experiment, UCSD
- Also: annual presentations to CCRMA Industrial Affiliates Mtg.

#### NETWORK CONCERTS (since 2004)

- 2015: UVA / CCRMA
- 2014: **VA Tech / UC Santa Barbara / CCRMA**
  - VA Tech / CCRMA
  - U of Birmingham / RPI / CCRMA *Quartetto Telematico*
  - Bing Studio CCRMA / Brazil / Columbia / IRCAM / Mem. Uni. / U VA
- 2013: Miami NWS / CCRMA
  - Zoo Labs, Oakland / CCRMA
  - World Opera Project, Struer DK, UMKC
  - CCRMA / Google Fiber Space, Kansas City
  - Orpheus Ens. Ghent/ CCRMA
  - Peabody / Singapore / CCRMA

2012: UNAM Mexico City / CCRMA  
 Cali, CO / UMich / CCRMA  
*Telematic Trio*, Arias, Oliveros, Chafe, Bogota / Troy NY / CCRMA  
 Bogota / Sao Paulo / CCRMA

2011: *Non-purpose wave*, Den Hague / CCRMA  
*Telematic Trio*, Arias, Oliveros, Chafe, Bogota / Rice / UC San Diego  
*Dresser / Chafe ensembles*, San Diego / CCRMA  
*Quartetto Telematico*, Oslo / Troy NY / CCRMA

2010: *YouTube Symphony Orchestra*, tests Sydney Opera House / Miami NWS / CCRMA  
*Waterman / Chafe quartet*, Memorial U. St. John's / Stanford  
*Oliveros / Chafe ensembles with M. Masaoka*, Rensselaer / Stanford  
*Juan Parra Recital*, Liege / Den Hague / Stanford  
*Slork Concert*, NJ / Denver / Stanford

2009: *Suddenly Listen*, Dalhousie U. Halifax / CCRMA  
*ResoNations*, Banff / UN-NYC / Belfast / Seoul / San Diego  
*MiTo Festival*, Milan / Missoula / Stanford  
*SMC Conference*, Porto / Rensselaer  
*Subtle Technologies Festival*, Toronto / Banff  
 CCRMA / Chile / Belfast / Rensselaer  
*Telejazz 3*, Banff / Belfast / Rensselaer / San Diego  
*Telejazz 2*, Banff / Toronto  
*Telejazz 1*, Banff / Calgary  
 Banff / Stanford / Rensselaer  
 Banff / Stanford

2008: *Cervantino Festival*, MX / NYU / Belfast / CCRMA  
*Artech Conference*, Casa de Musica, Porto / SARC Belfast  
 University of Tromso / Stanford  
 Beijing University / Stanford  
 ANET Conf. Banff/ St. Lawrence St. Qt. Stanford  
 Soundwire Ens. w/ RPI,  
 Chafe(SU) w/ UCSD/UCB

2007: Soundwire Ens. w/ RPI, UCSD,  
 Chafe(Banff) w/ RPI/UCSD (SIGGRAPH),  
 Chafe(SU) w/ RPI/UCSD (SIGGRAPH),  
 Chafe(KAIST, Seoul) w/ RPI/McGILL (ICAD)

2006: CCRMA w/ RPI/UCSC/Loyola(Chi.),  
 CCRMA w/ Loyola(Chic.)/UCSD/UA(Fairbanks),  
 CCRMA w/ UTromso,  
 CCRMA w/ Banff,  
 CCRMA w/ SARC/UW,  
 CCRMA w/ USC (California Streamin')

2005: CCRMA w/ SARC  
 CCRMA w/ Hochschule für Gestaltung und Kunst, Zürich

2004: CCRMA w/ UCSF/UCB (AES SF "300-square Mile Recording Studio" Stanford Mariachi)  
 NASA Meteor Crater testing of audible QOS evaluation (Mars landing simula-

tion)  
 CCRMA w/ Banff (ANET I Network Audio Summit, piano duo)  
 CCRMA w/ KTH (Point25 Concert, Wallenberg Foundation)  
 CCRMA w/ UVic/UMont (CCRMA Affiliates Mtg. "Triple Jam")  
 CCRMA w/ SARC

## PERFORMANCES OF COMPOSITIONS AND GALLERY / MUSEUM INSTALLATIONS

(\* concert appearances as performer in own works, \$ including performance of other's works, # found by ASCAP survey)

Exhibition List <https://ccrma.stanford.edu/~cc/pub/txthtml/galleries.html>

2015: \*UCB, \*Tromsø, \*\$Stanford(2), \*\$Buenos Aires, \*\$Mexico City(2), \*Hat Creek SETI, NYC, \$Stanford, \*San Francisco

2014: **Stanford**, \*Stanford(x4), \*Guanajuato, Barcelona, Grimbergen, \*Saratoga, \*Shanghai, \*SF, Chicago, Padua, Berkeley(x2), \*Charlottesville

2013: \*Berkeley, \*Buenos Aires(x2), \*\$Oaxaca, \*San Francisco, \$Hong Kong, Bucharest, Venice Biennale

2012: \*Stanford(x11), \*\$Missoula(x2), \*St. Johns, \$Stanford

2011: \*Palo Alto, \$Geyserville, \*Shanghai(x2), \*Beijing(x2), Berkeley, \*Stanford(x4), Santiago, Lincoln NE, Milwaukee, \*Memorial U., St. Johns

2010: \* Porto, Milan, \* San Jose, \* Palo Alto, \* Stanford(2), \* San Francisco, \*\$ New York, \*\$ Halifax, Bucharest, CCRMA

2009: \*\$ Banff, Toronto, \*\$ Porto, \*\$ Banff (4), \*\$ Missoula, \* Pasadena, CA

2008: \$Porto, PT, \* Guanajuato, \* Queretaro, MX, \*SARC Belfast, \*Stanford, \*Berlin, \$SU/UCB/UCSD, \$Stanford, \$SU/RPI

2007: Belfast, \$SU/RPI/UCSC/Loyola, Mtn. View, S. Francisco, \*\$KAIST/McGill/RPI, Machine Project L.A. installation, Stanford, \*\$SU/RPI/UCSD, \*New Orleans

2006: \*Riverside, \*Stanford, \*\$Taipei, \*Madrid, \*Morelia, \*Guanajuato, \*Queretaro, MX, Stanford x3

2005: \* Veracruz, \* Guanajuato, \* Queretaro, MX, \* Stanford, \* MusiCollage, Stanford

2004: \* Caracas, \* Mexico City, \* Queretaro, MX, Columbus, Bucharest, \* \$Taiwan recital, \* La Villette installation, Paris, \* Network Concert, w/Stockholm

2003: \$Berkeley duo recital, Seoul, Berkeley PFA premiere, \* Stanford, "Wired Gardens," \* Berkeley (x2) [# Spain]

2002: \* \$Eugene recital, \* Berkeley, Kroeber Museum installation (Sep 02-Sep 03)UC, \* Keihanna, JP., Hillsboro, OR installation, \*\$ San Jose (recital) [# Argentina]

2001: SF, Montreal, Bogota, Barcelona, SJMA installation (Oct-June), SFMOMA installation (Mar-Jul)

2000: \*\$ Seoul, \* Eugene, Albuquerque, \*\$ Stanford, \*\$ Berkeley

[# Germany]

1999: San Diego, \* San Jose, \* Lyon (2), \* Banff (4)

[# Germany]

1998: Banff, Buenos Aires, \* Karlsruhe (2), Rome, Bogota, San Juan, PR. Half Moon Bay, Stanford

[# Hong Kong, Japan, Spain, Belgium, Argentina]

- 1997 : \* Thessaloniki, \*\$ San Francisco, \* Stockton, \$ Stanford, \*\$ San Diego (2), \*\$ Buenos Aires, \* L'Aquila, It.  
[# Argentina, Germany (2)]
- 1996 : \* Pomona, \*\$ Stanford (recital), \$ Stanford, \* Hong Kong  
[# Argentina, Holland, Canada]
- 1995 : \*\$ Ch. Music Soc. San Jose, \*\$ Hong Kong, \* San Juan, PR. \* Baltimore, \*\$ San Diego, \*\$ Stanford, \*\$ Macerata, It. \* Thessaloniki, \* Canela-RS, Br. \*\$ Buenos Aires, \* San Francisco  
[# Denmark, Hong Kong, Argentina]
- 1994: \*\$ San Diego, \*\$ Salzburg, \$ Berkeley, \*\$ Stanford, \*\$ Seattle, Lüneberg, De. Cleveland, \*\$ Montreal, \*\$ Hamilton, NY. \*\$ Baltimore, \* Washington, DC. \*\$ Charlottesville, VA  
[# Israel, Norway, Austria, Switzerland]
- 1993: \*\$ Zurich, \*\$ Geneva, \*\$ Vienna, \*\$ Berlin, \*\$ Buenos Aires, \*\$ Tokyo-Kagurazaka, \*\$ Tokyo-Waseda, \* Radford, VA \* Rochester, NY Arnheim, Brasilia  
[# Italy, Switzerland]
- 1992: Parma, It. Stanford, Urbana, IL San Francisco, Waterville, ME Baltimore, Delphi, Gr. San Juan, PR. Plymouth, NH Monterey, CA Bowdoin, ME Portland, ME Mexico City, Tokyo, Bad Ischel, As. Macerata, It. Buenos Aires
- 1991: Denton, TX (recital) Ft. Worth, Dallas, Stanford (3), San Francisco, Berkeley, Athens, Montreal, Warsaw, Hamilton, NY San Jose, Stuttgart, Rome, NY (TV Tokyo, Madrid, Cologne)  
[# Netherlands, Italy, Norway, Britain]
- 1990: Denton, TX Wroclaw, Po. Essen, Palo Alto, Waterville, ME Stanford (3), Glasgow (2), Evanston, Bowling Green, OH Berkeley, Buenos Aires (2), New Haven  
[# Canada, Italy]
- 1989: College Park, MD (2) Buenos Aires, Palo Alto (2), Fort Worth, Tel Aviv, San Jose (2), Oberlin, Montreal  
[# Spain, Switzerland]
- 1988: Worcester, MA Stanford, Hamilton, NY Buenos Aires, College Park, MD
- 1987: Stanford (2), Madrid, Warsaw, Macerata, It. Princeton
- 1986: Houston, New York, Rome, Stanford (3), Berkeley (3), Tokyo, Buenos Aires, Roro, Sw. San Francisco, Venice, Belfast
- 1985: Warsaw, Montreal, Vancouver, Bourges, Fr. Buenos Aires, Padua
- 1984: Paris, Cologne, Bourges, Fr. Berlin, Melbourne, Evanston
- 1983: Los Angeles, San Antonio, San Francisco, Paris, Stanford, Vancouver, Lüneburg, De. WDR, De.
- 1982: Cambridge, MA Bourges, Fr. Urbana, IL San Francisco, Stanford, Rome
- 1981: Cagli, It. Stanford, Berkeley, Santa Cruz, Denton, TX  
(plus numerous performances as soloist in other's works, worldwide)
- 2011 Concerto Soloist with Stanford Symphony Orchestra in premier of Rocco DiPietro's *Finale*

#### COMPOSITIONS (since 1981)

(ce. = celletto, an electronic cello built by Chafe / Mathews in 1988)

<i>gnosisong (concert version)</i>	<b>video, celletto</b>	<b>2015</b>	
<i>gnosisong</i>	<b>installation with video and 15-ch audio</b>	<b>2015</b>	gnosisong.org
<i>Su Brain</i>	music for video by Lia Cook	2014	http://chrischafe.net/
<i>Polartide</i>	carillon and crowd-sourced tempo	2014	http://polartide.org/
<i>Polartide.org</i>	online and site specific installation (w/ Niemeyer et al.)	2013	
<i>Near the Inner Ear</i>	Symp., Video, Comp. snd (w/ Moon et al.)	2013	
<i>Fanfare</i>	opening of Bing Concert Hall	2012	
<i>Inside Out</i>	17-ch comp.snd	2012	
<i>Sun Shot</i>	harbour symphony for ships' horns	2012	
<i>SevenAirs.com</i>	online <i>musification</i>	2012	www.sevenairs.com
<i>Phasor</i>	cb. with live DSP	2011	
<i>Tomato Quintet III</i>	live comp. snd, installation	2011	
<i>Tomato Quintet II</i>	live comp. snd, installation	2010	
<i>Siren Cloud</i>	pn., e. gt., comp. snd	2010	
<i>Electrode</i>	laptop ensemble, network ensemble	2010	
<i>Blackcloud.org</i>	online <i>musification</i>	2010	[blackcloud.org]
<i>Rock, Paper, Scissors</i>	network ensemble	2009	
<i>Chopper</i>	network sax trio with comp. snd	2009	
<i>The End of Winter</i>	sound installation	2009	
<i>Cefiru</i>	ce. with live DSP	2008	
<i>TeleCello Concerto</i>	ce. and online ensembles	2008	
<i>Tomato Music</i>	8-ch comp.snd	2008	
<i>Tomato Quintet</i>	live comp. snd, installation	2007	
<i>Score IV</i>	radio baton, live comp. snd, animated conductor	2007	
<i>Congruence</i>	48-ch comp. snd	2007	
<i>Scatter</i>	sop., comp. snd, animated conductor	2006	
<i>Replication</i>	pn., comp. snd, animated conductor	2005	
<i>Speed &amp; Consensus</i>	cl., pn., vn., vc., comp. snd, animated conductor	2005	
<i>Ping 2</i>	interactive music, lighting installation	2004	
<i>Organum</i>	animation and music	2003	[Organum DVD]
<i>Wheel of Tunes</i>	interactive music installation	2003	
<i>Tangent</i>	clavichord and comp. snd.	2002	
<i>Carbon Path</i>	ce. live elec, comp. snd., video	2002	[RTVE radio recording]
<i>The World As We Know It</i>	film score	2002	[Underground Zero]
<i>Oxygen Flute</i>	interactive music installation	2001	[CCGNESP01-02]
<i>Ping</i>	interactive music installation	2001	[CCGNESP01-02]
<i>Voice Coil</i>	ce. with live elec.	2000	
<i>Time is the Friend</i>	music from <i>Riding the Tiger</i>	2000	[CRC2515]
<i>Transect</i>	comp. snd.	1999	[CRC2514]
<i>Riding the Tiger</i>	film score	1999	[Samuelson]
<i>Whirlwind II</i>	sx. with comp. snd.	1998	
<i>Whirlwind</i>	va. with live elec.	1997	
<i>Push Pull</i>	(scored version)	1997	
<i>Between the Sheets</i>	MIDI trio (with Fred Malouf)	1997	
<i>Arcology</i>	ce., disklavier, live elec. (w/ Scott Walton)	1996	[CRC2515]
<i>Pulse, Friction, Blues, End</i>	ce., trumpet, mridangam, live elec.	1996	[CRC2515]
<i>Push Pull</i>	ce. (improv. version) with live elec.	1996	[CRC2514]
<i>El Zorro II</i>	sea shells version with live elec.	1993	
<i>El Zorro</i>	tp. or tb. solo with live elec.	1992	
<i>Remote Control</i>	MIDI trio	1991	[CRC2515]
<i>Free Motion</i>	cb., vc., va., or vn. solo with comp. snd.	1990	[CRC2514][Rubenstein]
<i>Vanishing Point</i>	comp. snd.	1989	[CRC2514][Intercam]
<i>Hearts and Quarks</i>	film score		
<i>Duo Improvisation</i>	ce., tp. and live elec. (w/ Dexter Morrill)		[CRC2133]
<i>Virga</i>	hp. and hp. synthesizer		
<i>Backtrace</i>	ce. and live elec.	1988	[CRC2514][Rowe]

## RECORDINGS, SCORES (all titles ASCAP)

- [Quartteto Telematico – Triple Point #4] Pogus 21078-2
- [blackcloud.org] <http://blackcloud.org>, 2010
- [RTVE radio recording ] *Carbon Path* (celletto and computer music) Chris Chafe, audio version, for RTVE, Madrid, 2006
- [Organum DVD] *Organum* (DVD music and animation) with Greg Niemeyer, Christine Liu, Lorenzo Wang, UCB Art Practice, 2003
- [CCGNESP01-02] *Extrasensory Perceptions* (music from *Ping* and *Oxygen Flute*) with Greg Niemeyer CCRMA, 2002
- [Underground Zero] *The World as We Know It* (documentary film), Kris Samuelson and John Haptas, directors, 2002
- [CRC2515] *Arcology* (featured performer / composer CD) Centaur Records, 2002
- [CRC2514] *Arco Logic* (solo composer CD) Centaur Records, 2001
- [Samuelson] *Riding the Tiger* (documentary film), Kris Samuelson and John Haptas, directors, UC Extension Ctr. for Media and Indep. Learning, 1999
- [Rubenstein] *Maya*, Donald Rubinstein (CD), Desert Link Records, 1999
- [Qwire] (performer in live electronic band, CD) 1996
- [Intercambio] (compilation CD) CCRMA / UCSD / LIPM, 1993
- [CRC2133] *The Virtuoso in the Computer Age - II* (compilation CD series) CDCM v. 11, Centaur Records, 1992
- [Rowe] *Interactive Music Systems: Machine Listening and Composing* (CDROM) ISBN0-262-68075-0, MIT Press 1992
- [CRC2091] Jefferson String Quartet (compilation CD series) CDCM v. 8, Centaur Records, 1991
- [WER2026-2] *Digital Music Digital* (compilation CD series) Computer Music Currents, v. 6 Wergo Records, 1990
- [WER2016-50] *Dinosaur Music*, (compilation CD w/ Chris Chafe, vc.) Wergo Records, 1988
- [Semar] Semar Editore, Rome, 1986
- [CCRMA v.1] *Music from CCRMA* (cassette tape), 1982



as performer (ce.): *Salzburg Variations* Dexter Morrill, Music from Stanford, 2004 (CD), *Espresso Machine II* Fernando Lopez-Lezcano, ICMC '95: Digital Playgrounds, The Banff Centre, 1995 (CD), *Transmission Two* (excerpt) Larry Austin, Anthology of Music for the 21 Century, Leonardo Music Journal, 1991 (CD)

### **PROFESSIONAL SERVICE (all current and past)**

Promotion Reviews: **MIT**, UVA, Rhodes U., Princeton, Dartmouth, Aarlborg U., Brown, USC, UCSC, UWMil, UCol, UVic, Colby, Columbia, ASU, UVA, UMI, UCB, UO, Princeton, UIowa, UCB, UT Austin, UofO, UNT, NCTU,

Music / Media Juries, Awards and Papers Reading Committees: **ICMC 2015, NIME 2015**, International Composition Competition Città di Udine, ICMC 2014, AES 44th 2011 papers chair, B&W Festival 2011, SBCM 2011, SMC 2011, Artech 2010, SMC 2009, SBCM 2009, 2007, 2005, Intl. Comp. Music Conf., Florida, 2004, , Intl. Comp. Music Conf., Am. Psych. Assoc. Distinguished Scientist Award, Goteborg, Arts Fellowship C. of S. Clara, 2002, Intl. Comp. Music Conf., Havana, 2001, Intl. Comp. Music Conf., Berlin, 2000, Intl. Comp. Music Conf., Beijing, 1999, Intl. Comp. Music Conf., Ann Arbor, 1998, Intl. Comp. Music Conf., Hong Kong, 1996, Intl. Comp. Music Conf., Aarhus, 1994, Intl. Comp. Music Conf., Tokyo, 1993, Intl. Comp. Music Conf., San Jose, 1992, Peabody Cons., 1997-99

External Dissertation Review: Rhodes U., **UCalgary**, MIT, U. Luebeck, U. Pompeu Fabra, NUSingapore, McGill, Hebrew U.

Grant Evaluator: IRCAM, NSF, NSERC, SSHRC, Fonds Quebecois de la Recherche, Hong Kong Research Grants Council

Advisory Groups: NSF CISE, Internet2 Arts, CIRMMT McGill U. School of Music, Conseil Scientifique, IRCAM, Dept. of Music, Princeton U., Catgut Acoustical Society, J. of New Music Research, Swets & Zeitlinger B.V.

Program Evaluator: NYU, UCSC, UVA, Dartmouth

Publication Reviewer: Cambridge Press, UC Press, rev. and Preface to *Bhakti*, J. Palmer, MIT Press; UC Press; Leonardo; C. Inv. Musicale; J. of New Music Research; Organised Sound; IEEE Computer Soc., Computer Magazine; Acoustical Soc. of Am.; Computer Music J.

### **UNIVERSITY SERVICE**

**TripleCCRMA Lite Festival 40,50,80**

Memorial Resolution, Music Dept. 2015

**Promotion Reviews, 2013-15**

**Music Dept. Bing Concert Hall Programming Committee, 2012-15**

**Stanford Pre-Collegiate Studies Advisory Committee, 2012-15**

**Stanford Cross-Disciplinary Honors in Arts, 2012-15**

Music Dept. Graduate Studies Committee, 2012-13

Faculty Senate, 2011-12

Chair Promotion Review (G.W.), 2011-12

Promotion Review (J.K.), 2011-12

Music Dept. Bing Hall Program Committee, 2011-12

Music Dept. Search, 2010-11

Music Dept. Graduate Studies Committee, 2010-11  
 Chair Music Dept. Graduate Studies Committee, 2009-10  
 Promotion Review, 2009-10  
 Performing Arts Center Committee  
 Chair Promotion Review (J.B.), 2008  
 Music Dept. Search, 2008  
 CUAFA, 2008  
 SICA sub-committees, Perf. Arts Ctr., Grad Studies, Exploratorium  
 Chair CCRMA Search, 2007  
 Sculpture Search (Art Dept.), 2007  
 CUAFA, 2006  
 Sculpture Search (Art Dept.), 2006  
 Chair Promotion Review (J.S., G.B.), 2005  
 Chair Music Dept. Search, 2005  
 H&S Arts Initiative Planning Committee, 2005  
 Memorial Resolution, Music Dept.  
 Area Studies Search (Africanist Hum.), 2004  
 CogSciConf planning, Hum. Ctr., 2004  
 Drama Dept. Search Com., 2003  
 Music Dept. Kitchen Cab., 2003  
 Graduate Curr. Com., 2002  
 Chair, Contg. Appt. Review Com. (K.L.), 2001  
 Memorial Service, Concert, Music Dept.  
 OTL Awards Reviewer, 2001  
 Chair, Tenure Review Com. (J.B.), 2000  
 Memorial Resolution, Music Dept.  
 Chair, Composition Search Com., 1999  
 Undergraduate Curr. Com., 1999-01  
 Dept. Mgr. Search Com., 1999  
 Advisor to EPGY Music Theory Course (CSLI) 1999-present  
 Sondius-XG Advisory Com., 1998-present  
 Arts Service Action Program (Haas Center), 1997-98  
 Stanford Faculty Summer Service Learning Institute, 1997  
 Chair, Composition Search Com., 1997  
 Chair, Departmental Reappointment Com. (D.S.), 1997  
 OTL Awards Selection Com., 1997  
 Chair, Tenure Review Com. (J.R.), 1996  
 Search Com. for Computer Music, 1996  
 Chair, String Quartet Advisory Bd., 1995-97  
 KZSU Bd. of Directors, 1994-98  
 PI, Cooperative Composers-in-Residence Prog. with LIPM, Buenos Aires, The Rockefeller Foundation, 1990-95  
 Academic Software Development Advisory Bd., 1993-94  
 Director, CCRMA Summer Workshop Program, 1989-94  
 Chair, Music Department Graduate Studies Com., 1993  
 Music Department Graduate Studies Com., 1992

Chair, Music Department Facilities and Equipment Com., 1991  
Music Department Facilities and Equipment Com., 1990  
Arts Faculty Roundtable, 1992-94  
Assisted Centennial and Presidential Inaugural events, 1990-93  
Chair, University Orals Coms., CS, Mathematics and Psychology Depts.

#### **ADVISING**

Graduate Student Advisor, MA, PhD and DMA Programs in Music  
Undergraduate Advisor in Music (incl. Music, Science and Technology Degree)  
Undergraduate Advisor in Symbolic Systems Program  
Freshman Academic Advisor, 1987-1988

#### **COURSES TAUGHT**

Online Jamming and Concert Technology  
Music and Acoustics of Ancient and Contemporary Greece (Bing Overseas Studies Program)  
Sound, Digital Sound and Massive Sound Media (Sophomore College)  
Human Computer Interface Design  
Topics in Interactive Computer Music Performance (Sophomore Seminar)  
Graduate Student Colloquium (weekly, non-credit)  
Composition and Performance Using MIDI-based Computer Music Instruments  
History of Electroacoustic Music  
**Fundamentals of Computer-Generated Sound**  
Compositional Algorithms, Psychoacoustics and Spatial Processing  
Computers in the Arts and Humanities  
**Research Seminar in Computer Music**