Carla Scaletti

PO Box 2549 • Champaign, IL 61825-2549 USA
Phone: +1-217-355-6273 • URL: carlascaletti.com • E-Mail: carla@symbolicsound.com

Education

Doctor of Musical Arts   1984
University of Illinois at Urbana-Champaign
Thesis: *Factors contributing to the characteristic timbre of harp tones*
Composition: *Lysogeny, for harp and computer-generated electronics*
Committee: John Melby, James Beauchamp, Scott Wyatt, Constantine Trahiotis, Larry Gushee
Major: Music composition, Minor: Psychoacoustics

Master of Computer Science   1988
University of Illinois at Urbana-Champaign
Thesis: *Kyma: an interactive graphic environment for object-oriented music composition and real-time software sound synthesis written in Smalltalk-80*
Advisor: Ralph E. Johnson

Master of Music   1979
Texas Tech University
Thesis: *Waves: Concerto for Harp and Percussion Ensemble*
Advisor: Mary Jeanne van Appledorn

Bachelor of Music, *Magna cum laude*   1977
University of New Mexico

Experience

President / Co-founder—Symbolic Sound Corporation   1989-Present
Software design and development, marketing, sound design, documentation, user support for the Kyma sound design environment

Research Associate—CERL Sound Group University of Illinois   1984-1994
Data sonification research with National Center for Supercomputing Applications (NCSA); sound consultant for NCSA Virtual Reality Lab, organizer and lead instructor for annual Intensive Workshop in Sound Computation, music-related software development and design for Macintosh and PLATO platforms, composition and sound design for software and hardware developed by the CERL Sound Group

Adjunct Assistant Professor—University of Illinois School of Music 1992-1994
Advising graduate composition students, co-investigator on computer improvisation research with Salvatore Martirano, Bill Walker, Kurt Hebel, Organizer of weekly Seminars in Sound Computation

Visiting Assistant Professor—University of Illinois School of Music 1983-1984
Teaching computer music, 20th century music, 18th century counterpoint; Organizer of a weekly campus-wide seminar on computer music and Composers' Forum on student research in computer music; performing and touring as harpist with Contemporary Chamber Players

Teaching Assistant—University of Illinois School of Music   1982-1983
Teaching freshman and sophomore music theory and ear training courses

Graduate Assistant—Experimental Music Studio University of Illinois 1982-1983
Assisted in construction and wiring of a new Synclavier-based studio; assisted in daily maintenance and upgrades of four electronic music studios

Research Assistant—Psychology Department University of Illinois   1981

*Research and development of sounds for hypnotherapy to reduce anticipatory
nausea in cancer patients undergoing chemotherapy*

Teaching Assistant—Texas Tech University   1978-1979
Teaching undergraduate harp students

Principal Harpist—Lubbock Symphony Orchestra   1978-1979
Concerts and pop-concerts

Principal Harpist—New Mexico Symphony Orchestra   1978-1979
*Concert season plus state-wide touring, including the Albuquerque premiere
of Dave Brubeck's La Posada and tour of northern New Mexico*

Honors and Awards

Listeners' Choice Award: *SlipStick* for Kyma & Continuum fingerboard   2009
*Winners were selected by audience ballot during the SEAMUS conference
on Human Interface Devices in Ft Wayne & featured on a SEAMUS CD*

Distinguished Alumnae Award — Texas Tech University   2003
For invaluable contributions in the field of music

Editors' Choice Award — Electronic Musician Magazine   1998, 2001, 2005
For Kyma as best sound design workstation of the year

Commission Award — International Computer Music Association   1995
For the networked sound art installation "Public Organ"

Multimedia Award & 10th Anniversary Award — Nicograph   1991
For the video "Using Sound to Extract Meaning from Complex Data"

Fellowship — Apple Computer   1988
InterUniversity Consortium on Educational Computing
*For a proposal to get Smalltalk on a Mac to communicate with the CERL
Sound Group Platypus signal processor. Fellowship award was one year's
use of a Macintosh II and trip to Cupertino to present results at Apple*

University of Illinois Academic Fellowship   1980
Full tuition waiver based on academic performance

Percussive Arts Society Composition Contest Prize   1980
Full tuition waiver based on academic performance

University of Illinois Academic Fellowship   1979
For Waves: Concerto for Harp and Percussion Ensemble

Invited Keynote Addresses

ICAD2017 Keynote Address   2017
23rd International Conference of Auditory Display (ICAD)
http://icad.org/icad2017/program-2/keynote.html/

Looking forward, looking back   2015
41st International Computer Music Conference (ICMC)
https://icmc2015.unt.edu/

Interviews, news, references

The Sense of Beauty   In post-production
*Interview in Valerio Jalongo's documentary film on CERN and the
language of art and science*

http://www.amka.ch/EN/THE-SENSE-OF-BEAUTY-working-title-63e89d00

The Coding of Community: Carla Scaletti, Kyma, and Community Formation in Computer Music   2016
  by Madison Heying, University of California Santa Cruz
  American Musicological Society/ Society for Music Theory Conference
  http://www.ams-net.org/vancouver/abstracts.pdf

Art + Music + Technology Podcast 132   2016
  Darwin Grosse's interview with Carla Scaletti
  http://artmusictech.libsyn.com/podcast-132-carla-scaletti

Wonderland Podcast 132 with Steven Johnson   2016
  Episode 3: Strange Loops and Circuit Benders
  http://bit.ly/2hh3Ghn

Audio Innovations   2011
  Interviewed by Ron DiCesare in his column for Post Magazine where he talked to the "innovators and risk-takers who are reshaping the audio industry."

Grove's Dictionary of Music and Musicians   2010
  Article by Elizabeth Hinkle Turner
  http://www.oxfordmusiconline.com/public/

Pink Noises: Women on Electronic Music and Sound   2010
  Interview chapter by Tara Rodgers pp 43-53
  Duke University Press

Carla Scaletti interviewed by Giorgos Frangiskos   2008
  As part of the Electro-Medea festival in Athens
  http://usoproject.blogspot.com/2008/06/carla-scaletti-interviewed-by-giorgos.html

Crossing the Line: Women Composers and Music Technology in the United States   2006
  by Elizabeth Hinkle-Turner
  Ashgate Publishing

Linguaggi di programmazione   2006
  Interview sidebar by Matteo Milani
  Strumenti Musicali magazine January 2006 issue

Digitale Soundeffekte   1999
  Interview by Maximillian Schönherr on WDR 5 FM in Germany

Listen Closely: Thanks to Special Effects, Movies Have Been Given A Whole New Look. Get Ready for a Whole New Sound.   1998
  by Eben Shapiro, Wall Street Journal, March 19, 1998
  Special report on Kyma, morphing, and special sound effects for films

Electric Sound: the past and promise of electronic music   1997
  by Joel Chadabe Prentice Hall pp 265-267, 337
  Includes stories surrounding Kyma, Symbolic Sound and Public Organ

American Women in Electronic Music, 1984-94   1997
  by Gavin Borchert Contemporary Music Review Vol. 16, pp. 89-97
  OPA. Amsterdam
  http://www.tandfonline.com/doi/pdf/10.1080/07494469700640101

Sound FX: When Hollywood Needed to Create the Perfect-Sounding Movie Villain, It Turned to Kurt and Carla   1995
  Interview with Paul Wood in The News Gazette, August 3 1995, pg C1

Audible Traces: Gender, Identity, and Music   1995
  Edited by Elaine Barkin, Lydia Hamessley pp 7-8

Platypus, Granules, Kyma, Daton, & the DSP56001 in Your Future   1987
by Bob Moog, Keyboard Magazine
Report on highlights of the 1987 International Computer Music Conference

Publications — Websites

carlascaletti.com   2006-Present

LHCsound: Sonification of the ATLAS detector data   2013
With physicist Lily Asquith
Documentation and sounds from our collaboration

symbolicsound.com   1996-Present
With Kurt J. Hebel

Publications — Software

Kyma 7.1—Sound design environment   2016
*Automatic signal flow generation based on Sounds and files; new synthesis
and processing algorithms based on dynamical systems, and more
http://kyma.symbolicsound.com/latest-press-releases/kyma-7-1-more-
inspiration-more-live-interaction-new-ways-to-generate-sound/*

Kyma 7—Sound design environment   2015
*Designed to support composers and sound designers by providing inspiration
and help when needed. New Multigrid for exploring combinations of
sources and effects with no interruption in the audio signal; new Wave
Editor Gallery automatically generates library of signal flow patches based
on the edited sample; new Parameter Assistant, Capytalk Reference,
Inspiration tool, and web-based Questions and Answers make it easy to get
up to speed quickly and get questions answered. Kyma Community Sound
Library accessible from the Help menu in Kyma 7.
http://kyma.symbolicsound.com/whats-new-in-kyma-7/*

Kyma X—Sound design environment   2004-2015
*Including new icons, a new Tools editor, a drag-and-drop Expressions
Library plus autocompletion, making it easy to create complex controls for
any sound parameter, enhancements to the spectral analysis and
synchronization tools, Sound caching and partial-compilation to speed
development in the Timeline and substantial changes in the underlying
structure to make it possible for Kyma to run under Mac OS X and
Windows XP
http://www.symbolicsound.com/Company/KymaXReleased/*

Kyma.5—Sound design environment   2000
*Introducing a new Sound Library containing over one thousand new
sounds and effects; new Sound Browser where you can audition and
combine Sounds; the Virtual Control Surface, Preset lists, Rolling the dice,
the Timeline, Multichannel spatialization and panning, support for the
Motor Mix, and more.
http://www.symbolicsound.com/press-Kyma5Shipping.html/*

Kyma 4—Sound design environment   1996

Introducing spectral analysis tools and resynthesis with spectral morphing or warping using additive synthesis; graphic spectrum editor; RE (resonator/exciter) cross synthesis; a vocoder; tuning tables for microtonal scales and other alternate tunings; a MIDI scripting language to generate MIDI sequences algorithmically (in addition to the standard features of being able to use MIDI files and live MIDI from sequencers or MIDI controllers).
http://www.symbolicsound.com/press-releases.html

Kyma and Kyma 2.0   1986-1995
There was no Kyma version 3. Due to a superstition in the software industry, version 4 followed immediately after version 2

Publications — Book Chapters

Sonification ≠ music   Forthcoming
Chapter in Alex McLean and Roger Dean (eds.) The Oxford Handbook on Algorithmic Music. New York: Oxford University Press

Metaphor in Mathematics and Sound   2007
Chapter in Michele Emmer (ed.) Matematica e Cultura 2007. Milano: Springer-Verlag

Sound Synthesis Methods for Auditory Data Representation   1994
Chapter in Gregory Kramer (ed.) Auditory Display: Sonification, audification, and auditory interfaces. Santa Fe Institute Studies in the Science of Complexity: Addison-Wesley

Using Sound to Extract Meaning from Complex Data   1991
Chapter in Edward J. Farell (ed.) Extracting Meaning From Complex Data: Processing, Display, Interaction II Volume 1459, SPIE-The International Society for Optical Engineering, San Jose

An Object-based Representation for Musical Signals,   1991
Chapter in Giovanni De Poli, Curtis Roads and Aldo Picialli, (ed.) Representations of Musical Signals, MIT Press, pp 371-389

The Kyma/Platypus Computer Music Workstation   1991
Chapter in Stephen Pope (ed.) he Well-tempered Object: Musical Applications of Object-oriented Programming, MIT Press, pp 119-140

Publications — Articles

Looking Back, Looking Forward: a Keynote Address for the 2015   2016
International Computer Music Conference
Cover story in Computer Music Journal , v40, n1, 2016.
http://www.mitpressjournals.org/doi/pdf/10.1162/COMJ_a_00341

Computer Music Languages, Kyma, and the Future   2002
Computer Music Journal , v26, n4, 2002
http://muse.jhu.edu/issue/2337

Reflections on the 20th Anniversary of CMJ   1996
Computer Music Journal , v20, n3, pp. 31-35, 1996.
http://www.symbolicsound.com/Learn/TwentiethAnniversary

Kyma: an interactive graphic environment for object-oriented music composition   1989
and real-time software sound synthesis written in Smalltalk-80
University of Illinois at Urbana-Champaign Computer Science Department technical report, 1989.

The Kyma/Platypus Computer Music Workstation — 1989
Computer Music Journal, v13, n2, pp. 23-38, 1989.

Composing Sound Objects in Kyma — 1989
Perspectives of New Music, v27, n1, pp. 42-69, 1989.

The CERL Music Project at the University of Illinois — 1985
Computer Music Journal, v9, n1, pp. 45-58, 1985.

Publications — Proceedings

A Framework for the Design, Development, and Delivery of Real-time Software-based Sound Synthesis and Processing Algorithms — 1994
Proceedings of the 1994 Audio Engineering Society 97th Convention , San Francisco, 1994.

The Software Architecture of the Kyma System — 1993
Proceedings of the 1993 International Computer Music Conference , Tokyo, 1993.

Polymorphic Transformations in Kyma — 1992
Proceedings of the 1992 International Computer Music Conference, San Jose, October 1992.

Lightweight Classes Without Programming — 1991
Proceedings of the 1991 International Computer Music Conference, Montreal, Canada, October 1991.

An Interactive Graphic Environment for Object-oriented Music Composition and Sound Synthesis — 1988
Proceedings of the ACM Conference on Object-oriented Programming, Systems, Languages and Applications, pp. 222-233, 1988.
http://dl.acm.org/citation.cfm?id=62084.62103&coll=portal&dl=ACM

Kyma: an Object-oriented Language for Music Composition — 1987
Proceedings of the 1987 International Computer Music Conference, pp. 49-56, 1987.

Online Essays and Reviews

Art and Science: an interdisciplinary workshop in Geneva — 2015
Report on the GVA sessions published on Ear to the Earth web site.
http://eartotheearth.org/2015/11/carla-scaletti/

Sonification of the world — 2015
Essay on making data audible published on Ear to the Earth web site.
http://eartotheearth.org/2015/01/sonification-of-the-world/

Music and the flow of meaning — 2010
Review of Mark Johnson's The Meaning of the Body: Aesthetics of Human Understanding on Amazon.com

Publications — Books

Kyma 7 Revealed — Manuscript in preparation
Expands upon the material in Kyma X Revealed to include Galleries, Searching, Multigrids, the Wave Editor, and more.

Kyma X Revealed: Secrets of the Kyma Sound Design Language — 2004

*Step-by-step tutorials, tips, shortcuts and sound design techniques, the book
is written in an entertaining style that makes it fun and informative for both
experienced Kyma users and beginners.*
Symbolic Sound Corporation 2004 (430 pages)

Kyma.5 Walkthrough A Tutorial Introduction to Kyma.5   2002

The Kyma Language for Sound Design: Version 4.5   1997

Visiting Lectures, Workshops, Panels

Ask, Recombine, Tumble (ART)   2016
Strategies for overcoming writers' block in Kyma 7.1
  For Charles Nichols' Computer Music course at Virginia Tech University

Tracing Computer Music back to Prehistoric Times   2016
Mastery over fire, the invention of software, and the World Wide Web
  *For Eric Lyon's History of Electornic Music course at Virginia Tech
  University in Blacksburg Virginia*

Data sonification ≠ music   2016
  New York University Department of Music Colloquium
  http://music.as.nyu.edu/object/music.colloquium.scaletti

Panel Discussion on Music and Technology   2016
  *with Phil Edelstein, Michelle Jaffe, Lauren Hayes, Izzi Ramkissoon, Troy
  Rogers, and Carla Scaletti. Dan Weymouth moderator*
  *cDACT 50ᵗʰ Anniversary of Experimental Arts Technology Colloquium
  organized by Margaret Schedel, Stony Brook University*
  http://cdact.stonybrook.edu/feat/colloquium/

Emergence   2016
Can we create the necessary conditions for emergence to arise in Kyma?
  Kyma International Sound Symposium
  De Montfort University Leicester, UK
  https://vimeo.com/193469489

What's new in Kyma 7.1   2016
Dynamical systems, spherical panning, galleries everywhere, and more
  Kyma International Sound Symposium
  De Montfort University Leicester, UK
  https://vimeo.com/191316552

Design Patterns for Live Performance   2016
Recognizing recurring patterns helps you design new live performances
  Kyma International Sound Symposium
  De Montfort University Leicester, UK
  https://vimeo.com/188926550

Kyma 7 for Sound Designers   2016
  Skywalker Sound Studio, Skywalker Ranch

Data-driven   2016
How scientific data-sonification changed the way I think about music
  University of California Santa Cruz Graduate Colloquia Series
  http://music.ucsc.edu/programs/graduate/scaletti-abstract

Inspiration and sound design in Kyma 7   2016
*For Larry Polansky's students at the University of California Santa Cruz
Graduate Workshop in Electronic Music*

What scientific data sonification taught me about music   2016
The Barlow Lecture at Brigham Young University

Looking back, looking forward   2016
For Steven Ricks' composition students at Brigham Young University

Design of Kyma System Software and Hardware   2016
*For electrical engineering and composition students and faculty, Brigham
Young University*

The Music for QUANTUM   2015
Choreographer Gilles Jobin's CERN inspired dance piece
Cinèma Spoutnik, Geneva Switzerland

New ways to play: visionary designers on their instruments   2015
*With Gerhard Behles (Ableton Live), Roger Linn (LinnStrument), Stephan
Schmitt (Native Instruments) and Carla Scaletti (Kyma), in conversation
with Dennis DeSantis (author of Making Music) at Ableton Loop
Conference Berlin
https://www.ableton.com/en/blog/visionary-designers-and-their-instruments/*

Looking back, looking forward   2015
*A keynote address on the theme at the 41ˢᵗ International Computer Music
Conference at the University of North Texas
http://icmc2015.unt.edu*

Picturing Sound (First Contact)   2015
*By using light's interaction with sound pressure waves in the air, could we
overcome our reliance on physical membranes for sound recording?
Kyma International Sound Symposium
Montana State University, Bozeman MT
https://vimeo.com/188926550*

Design Patterns for Controllers   2015
Recognizing and re-using recurring parameter-control patterns
*Kyma International Sound Symposium
Montana State University, Bozeman MT
https://vimeo.com/150370447*

Data sonification, Music, and Meaning   2015
*Rensselaer Polytechnic Institute HASS Graduate Colloquium
http://www.hass.rpi.edu/pl/news-s17/composer-carla-scaletti-speak-hass-
graduate-colloquium-april-8*

What is the most organic sound?   2014
Syphillis, mitochondria, integral feedback and pilgrimage
*Kyma International Sound Symposium
Musikhochschule Lübeck
https://vimeo.com/113805611*

Introduction to the new Kyma   2014
Preview of the soon-to-be-released Kyma 7
*Kyma International Sound Symposium
Musikhochschule Lübeck*

Data-driven Sound   2014
What scientific data sonification has taught me about music
*University of Virginia Graduate Music Colloquium
http://music.virginia.edu/carla-scaletti-colloquium*

Seminars on data-sonification and Kyma 7   2014
  New York University Steinhardt Media Studies Program

Composers Forum on Data Sonification   2014
  University of Illinois School of Music

Morphisms, Maps, Meaning and Magritte   2013
  Kyma International Sound Symposium
  LARAS/ISIB in Brussells
  http://ssc-media.com/Movies/KISS2013/Scaletti-MorphismsMappingMeaningMagritte.mov

Guest Artist at Future Music Oregon   2013
  Concert, lectures, and an all-day sound design workshop at the University of
  Oregon in Eugene for students of Jeffrey Stolet and professional composers
  from Arizona, California, New Mexico, Washington, and Oregon

Reel time versus Real Time   2012
  Kyma International Sound Symposium
  St Cloud State University in St. Cloud MN
  https://www.youtube.com/watch?v=CzKakyqADCU

Sound Design in Kyma   2012
  Six-hour intensive workshop
  Kyma International Sound Symposium
  St Cloud State University in St. Cloud MN
  https://www.youtube.com/watch?v=xDeP2T6rOTc

Intensive Kyma seminar for composers   2011
  For composition students of Eric Chasalow at Brandeis Electro-Acoustic
  Music Studio (BEAMS), taught via two channels of iChat when an
  extensive blizzard closed airports from Chicago to Boston

Exploring Sound Space   2011
Time, space, metaphor, sync and the power of science fiction
  Kyma International Sound Symposium
  Casa da Musica in Porto, Portugal
  http://ssc-media.com/Movies/KISS2011/ExploringSoundSpace.mov

Pre-conference workshop on Kyma   2010
  SEAMUS Conference in St Cloud Minnesota

Sound for Dance Workshop   2010
  Gilles Jobin's GVA Sessions in Geneva Switzerland

Music is not a language   2010
Embodied cognition and the enrichment of language
  Kyma International Sound Symposium
  Casino Baumgarten, Vienna Austria
  http://ssc-media.com/Movies/KISS2010/ScalettiKeynoteKISS2010.mov

Composers' Forum   2009
  Brooklyn College Conservatory of Music students of George Brunner

Kyma, Pacarana and mapping to external controls   2009
  Electronic Music Foundation Studio in Manhattan

Exploring 2-d parameter space with the Wacom tablet   2009
  SEAMUS conference on Human Interface Devices in Ft Wayne

Recombinance makes us human   2009
  Kyma International Sound Symposium
  Barcelona, Spain

Guest composer (lectures and concert)   2008
  Future Music Oregon, University of Oregon in Eugene with a sneak peek at
  the new Pacarana & premiere performances of SlipStick and Cyclonic

Athens Electromedia Works Festival
2008
Lectures and concerts as part of a festival in Athens Greece (featuring a surprise sneak peek at the new Pacarana)

Seminar on composition with Kyma
2008
For composition students of Andreas Mniestris, co-taught with Joel Chadabe at Ionian University in Corfu, Greece

Annual 30-hour course in sound-based music composition
2001–2007
Center for Creation of Music Iannis Xenakis (CCMIX) in Paris

Sound design in Kyma
2006
Gary Kendall's Music Technology students at Northwestern University

Metaphor in Mathematics and Sound
2006
Invited talk at Matematica e Cultura in Venice

The Body in the Sound: Can non-speech audio convey meaning? (and if so, what does it mean?)
2005
Invited talk at the Laboratory for Creative Arts & Technologies in Baton Rouge, Louisiana

A Sound is a sound is a sound: The design and implementation of a language for specifying manipulating, combining and controlling digital audio signals
2005
Invited talk at the Laboratory for Creative Arts & Technologies in Baton Rouge, Louisiana

Three-day Seminar on Sound Design
2004
Ionian University in Corfu, Greece

London Kyma Users' Group Seminar
2003
Tape Gallery in London, UK

Kyma Workshop
2002
University of West London

Invited concert and lecture
2002
Keele University. Keele, UK

Aggregate Synthesis
2002
SEAMUS Conference in Iowa City Iowa

The Body in the Sound: Communicating with nonspeech audio
2002
De Montfort University, Leicester UK

Aggregate Synthesis & FireWire
2001
Presented on a 10-city tour during November undertaken in response to 9/11: St Louis, Nashville, Atlanta, Raleigh/Durham, Washington DC, New York, Pittsburgh, Cleveland, Detroit, Chicago

Kyma.5 in Electroacoustic Composition
2001
SEAMUS Conference in Baton Rouge, Louisiana

Intensive Workshop on Sound Design
2000
DIEZE (SIS) Film Sound Studios in Paris

Guest composer at KTH (Academy of Media Arts)
2000
Cologne, Germany

Intensive Kyma Workshop
2000
LoveBytes Institute in Sheffield UK

London Users Group Seminar
2000
The Tape Gallery in London UK

Guest Professor
1999
Institut für Electroakustik und Experimentelle Musik an der Universität für Musik und darstellende Kunst in Vienna, Austria

Guest Composer (concert and lectures)   1999
University of Oregon Future Music Studios in Eugene Oregon

Kyma.5 Recombinant Sound   1999
Lecture/Demonstration at Engine 27, New York City

Guest Composer (concert and lectures)   1998
Institut für Electroakustik und Experimentelle Musik an der Universität
für Musik und darstellende Kunst in Vienna, Austria

Guest Composer (concert and lectures)   1998
Institut für Electroakustik und Experimentelle Musik an der Universität
für Musik und darstellende Kunst in Vienna, Austria

Public Organ: Under the table and across the web   1996
Bruckner Conservatory / SAMT. Linz/Hagenberg, Austria

Kyma: A Language for Creating and Manipulating Sound   1996
Musikhochschule. Vienna, Austria

Sounds, Symbols, and Cyborgs   1996
Alte Schmiede. Vienna, Austria

The Body in the Sound: Listener-Centered Sound Design   1996
University of Kingston. London, UK

Kyma: A Language for Creating and Manipulating Sound   1996
University of Kingston. London, UK

Kyma: an Overview   1996
Bruckner Conservatory / SAMT. Linz/Hagenberg, Austria

Guest Composer   1996
NoTAM in Oslo, Norway

An Object-based Representation for Digital Audio Signals   1995
Microsoft Corporation. Redmond, Washington

A Language for Digital Audio Signals   1994
Computer Science Colloquium. University of Chicago

Invited pre-conference tutorial on the Kyma language   1994
International Computer Music Conference in Aarhus Denmark

Paper chair on computer music languages session   1994
International Computer Music Conference in Aarhus Denmark

California Institute of the Arts Composer-in-residence   1994
Two weeks of teaching and collaborations at CalArts and the Internet Café

Kyma 2.0 for Windows   1993
Society for Electro-acoustic Music in the United States, Austin, Texas

Introduction to Data Sonification   1993
ACM SIGGRAPH tutorial course with Brian Evans and Robin Bargar,
Anaheim, California

Advanced Kyma Workshop   1992
EMS in Stockholm Sweden

Dartmouth College Graduate Timbre Seminar   1992
Two weeks of lectures for Larry Polansky's students in music technology

Computer Music in Kyma   1992
Musik Hochschule, Vienna Austria

Sound Synthesis Methods for Auditory Data Representation   1992
First International Conference on Audio Display, Santa Fe Institute

The Kyma System   1991
invited paper at the Acoustical Society of America conference, Houston

Kyma	1991
Society for Electro-acoustic Music in the United States, Urbana, Illinois	
Kyma language for controlling digital signal processing hardware	1991
Workshop on Signal Processing, Universita' degli Studi di Roma "La Sapienza", Dipartimento di Fisica, Rome, Italy	
Special paper session on the Kyma System	1991
International Computer Music Conference in Montreal	
Intensive Workshop in Sound Computation	1991-1993
CERL Sound Group two-week intensive workshop at the Beckman Institute for Advanced Science and Technology University of Illinois	

Reviewing and Thesis Advising

Paper reviewer for International Computer Music Conference	1994-2001, 2014-Present
External thesis committee member	2016-Present
Senem Pirler doctoral candidate in Arts at Rensselaer Polytechnic Institute	
External thesis committee member	1995
Mark Ballora PhD in music technology emphasis on auditory displays to illustrate data at McGill University	
Paper reviewer for ACM SIGGRAPH	1994
Paper reviewer for International Conference on Auditory Display	1992, 1994
At large reviewer for NSF Special Section on Computer-Human Interface	1992

Organizational Experience (conferences and seminars)

Kyma International Sound Symposium (KISS) co-organizer	2009-Present
Collaborate with representatives of host institution on developing a theme, creating a call for participation, organizing the selection and review committee, creating the program of talks and concerts, designing and funding a memento for participants, presenting a keynote on the theme, pre-conference master class, presenting new research on the morning program and compositions on the evening concerts	
KISS2016—Emergence (subtheme: Crossing Boundaries)	2016
Organized with Craig Vear and Simon Smith at De Montfort University *http://kiss2016.symbolicsound.com/call-for-proposals/*	
KISS2015—Picturing Sound (subtheme: First Contact)	2015
Organized with Theo Lipfert at Montana State University *http://kiss2015.symbolicsound.com/call-for-proposals/*	
KISS2014—Organic Sound (subtheme: Thomas Mann)	2014
Organized with Franz Danksagmüller at Musikhochschule Lübeck *http://kiss2014.symbolicsound.com/call-for-proposals/*	
KISS2013—INTER faces (subtheme: Magritte)	2013
Organized with Rudi Giot and Jacques Tichon at LARAS/ISIB, Brussells *http://kiss2014.symbolicsound.com/call-for-proposals*	
KISS2012—Reel Time vs Real Time	2012
Organized with Scott Miller at St Cloud State University *http://kiss2012.symbolicsound.com/call-for-proposals/*	

KISS2011—Exploring Sound Space   2011
Organized with Eduardo Magalhaes at Casa da Música Porto
http://kiss2011.symbolicsound.com/welcome/call-for-proposals/

KISS2010—Symbolic Sound (subtheme: Meaning in Music)   2010
Organized with Bruno Liberda and Peter Rantassa in Vienna
http://www.symbolicsound.com/cgi-bin/bin/view/Learn/KISS2010/

KISS2009—Kyma   2009
Organized with Cristian Vogel in Barcelona
http://www.symbolicsound.com/cgi-bin/bin/view/Learn/KISS2009

Café Sci   2006
Organized a Café Scientifique in Champaign Illinois, monthly meetings where the public could ask questions of a researcher at a local coffee house, described by the local PBS affiliate: "The public television series "Nova" knew it long ago – people are interested in science, especially if it's boiled down into how it affects their life and the world around them. A Champaign woman (Carla Scaletti) is helping turn that interest into a two-way discussion in a friendly atmosphere. AM 580's Tom Rogers went to the first local meeting"

Compositions and Performances

Bubble and squeak   Work in progress

Double-well for audience processed through Kyma   2016
Virginia Tech DSIS Cube Concert (139 speakers)
University of Illinois Studio Theatre Ensemble Modern Concert
Stony Brook fE.A.T. Concert (world premiere)*

Conductus for pipe organ, Kyma and three singers in tap shoes   2014
Written for Franz Danksagmüller, organ; Birte Prüfert, Theresa Szorek & Iga Osowska, voice; Anne Michael, rehearsal conductor; and the extraordinary reverberation of Jakobikirche Lübeck
http://carlascaletti.com/sounds/sound-art/conductus/

QUANTUM   2013
40' score for choreographer Gilles Jobin's CERN inspired dance piece
Le Granit / Scène national - Belfort – France (2017)
3-city tour of Argentina 2016
St Petersburg Russia, Porto Portugal, Strasbourg France (2016)
Barcelona Spain 2015, Berlin Germany, Forbach France (2015)
5-city tour of Mexico (2015)
Meyrin Switzerland 2015, 2-city tour of India (2015)
France, Uruguay, Brazil, Bulgaria (2014)
New York (Brooklyn Academy of Music), San Francisco, Vancouver (2014)
Chile, Brazil, Peru, Lausanne (2014)
Theatre de la Cité Internationale Paris (2013)
9 Performances at the CMS Experiment site at CERN (2013)

Spider Galaxies   2011
60' score for choreographer Gilles Jobin's dance piece, co-composed with Cristian Vogel, performed by POL
Tbilisi Georgia 2013
2-city tour of Mexico 2012
Tunis, Tunisia 2012
Theatre Les Halles Sierre Switzerland & Montpellier France 2012
Tour of Switzerland, Italy, France, Libya, Syria 2011

...odd kind of sympathy for audience processed through Kyma 2011
Brigham Young University (2016)
Future Music Oregon (2013)
Casa da Musica Porto Portugal (2011)

Autocatalysis for audience processed through Kyma 2010
Future Music Oregon (2013)
Casino Baumgarten Vienna (2010)

Cyclonic 2008
Cinéma Spoutnik with Peter Mettler live image-mixing Geneva (2015)
SEAMUS in St Cloud MN (2010)
Future Music Oregon (2008)

SlipStick for Continuum fingerboard controlling Kyma 2008
https://www.youtube.com/watch?v=eAVLrtOrcyc
SEAMUS in Ft Wayne IN 2009
KISS in Barcelona 2009
Future Music Oregon 2008

Frog Pool Farm 2002
BBC 3 Late Junction with Verity Sharp 2016
(http://www.bbc.co.uk/programmes/p04dbmt2)
GraphicalSound's Kyma Sonic World Podcast 2005
Electric Pacific in San Jose CA 2005
Herbert Brün Festival Urbana, IL 2003
Recontres 2002 Musique et Arts visuels in Paris
City Gallery in Leicester UK 2002
Keele University, UK 2002

Lament for narrator processed through Kyma 1999
City Gallery Leicester (2002)
As the opening for nearly every Kyma demo for many years

Tangled Timelines for Celtic harp and Kyma 1999
City Gallery Leicester UK (2002)
Keele University UK (2002)
CCMIX Paris (2002)
Engine 27 New York City (1999)
Future Music Oregon (1999)

Public Organ 1995
International Computer Music Conference in Banff

Mitochondria 1994
Humor y Aliento 2nd International Art Festival Mexico City (2000)
Future Music Oregon (1999)
KymaFest Concert in London UK (1996)
International Computer Music Conference Aarhus Denmark (1994)

Trinity for narrator processed through Kyma 1989
Kyma concert Vienna (1992)
International Computer Music Conference in Columbus OH (1989)
Hear and Now Urbana IL (1989)

sunSurgeAutomata 1987
Computer Music Project Anniversary Concert Urbana IL (2014)
Come, Hear! Lancaster UK (2000)
Studio Exchanges Montreal (2000)
Future Music Oregon (1999)
EuCuE Series Montreal (1997)

Corpi del Suono L'Aquila Italy (1997)
Aesthetics and Idealogies West Lansing MI (1994)
Ultima Oslo Contemporary Music Festival (1993)
Oberlin Conservatory (1991)
International Computer Music Conference Urbana IL (1987)
Northwestern University Chicago IL (1987)
Michigan State University West Lansing (1987)
SCREAM Festival Los Angeles (1987)
American Conference on Cybernetics Urbana IL (1987)
Computer Music Weekend Vancouver (1987)

Levulose for double-bass and CERL Interactive Music System   1986
Jackie Puckette bass / Howard Werschel Kyma Atlanta GA (1992)
Alex McHattie/Performers' Workshop European Tour (1991)
Mike Price bass recitals in Urbana, IL (1985)
Mike Price recital Oslo (1985)

X Bar for piano and CERL Interactive Music System   1986
David Liptak, piano Contemporary Chamber Players Urbana IL (1986)
David Liptak & Contemporary Chamber Players Carbondale IL (1986)

Lysogeny for concert harp and Music 360-generated tape   1983
Susan Allen, harp Musica Verticale in Rome (1993)
Susan Allen Festival of New Music Darmstadt (1988)
Susan Allen Women in Music Heidleberg (1988)
Susan Allen harp recital Los Angeles (1988)
Third Electronic Festival University of Louisville (1985)
Indiana University (1985)
MIT With Strings Attached (1985)
Alyssa Hess, harp at New York University (1984)
Alyssa Hess, harp at Columbia University (1984)
Alyssa Hess at Gustavus Adolfus Church (1984)
International Computer Music Conference Rochester (1983)
Tage Neuer Musik Bonn (1983)
New Mexico Composers' Symposium Albuquerque NM (1983)
Performers' Workshop Concert Urbana IL (1983)
Midwest Composers' Symposium Ann Arbor (1983)

Blood Wedding for 10 instruments and actor/singers   1982
One hour of incidental music and song settings for Garcia Lorca's play
7 performances at Krannert Center Urbana, IL (1982)

Yes for mezzo soprano and Buchla-generated tape   1981
Midwest Composers Symposium Oberlin OH (1981)
Computer music concert Urbana IL (1981)

Motet for mezzo soprano, bass clarinet, harp, and narrator   1977
Taos Music Festival Taos NM (1978)

Recordings (Compositions)

sunSurgeAutomata   1989
CDCM Computer Music Series, Vol. 3, Centaur Compact Disk CRC 2045

Lysogeny   1984
25th Anniversary of the Experimental Music Studios of the University of
Illinois Commemorative Album

Motet   1977

Opus One Records Number 42, Max Schubel producer

Recordings (Harp solo or small ensemble)

Lysogeny   1984
25th Anniversary of the Experimental Music Studios of the University of
Illinois Commemorative Album

Ragwyrk for Harp and for Carla Scaletti   1979
Max Schubel, Opus One Records Number 50

Piece   1977
Jordan Tang, Opus One Records Number 42

thank you god for most this amazing   1977
Joanne Forman, Opus One Records Number 34

Affiliations/Memberships

- Editorial Advisory Board, Computer Music Journal   2016-Present

- Associate Editor & Member, Ear to the Earth (eartotheearth.org)   2015-Present

- Member, Association for Computing Machinery (ACM)   1987-Present

- Member, Institute of Electronic and Electrical Engineers (IEEE)   1993-Present

Interests

- Inventing new sound synthesis and processing algorithms

- Automating the process of sound design and discovery to assist sound designers and composers

- Distributed cognition

- Scientific data sonification—assisting researchers in understanding, interpreting, and communicating their results by mapping their data to sound

- Experimental music composition and live interactive performance

- Meaning in non-speech audio (especially in music and data sonification)

- Intuitive, efficient interfaces for sound design, music composition and performance

- Embodied cognition (Mark Johnson and George Lakoff) and its implications for data sonification and music