

Charles Nichols (b. 1967)

School of Music, University of Montana, Missoula, MT 59812 (406) 243-5360
201 Westview Drive, Missoula, MT 59803 (406) 531-8062
charles.nichols@umontana.edu
www.CharlesNichols.com

Education:

- Stanford University, Department of Music - Ph.D. in computer music theory and acoustics 1996-2003
- composition with Richard Felciano, Brian Ferneyhough, Jonathan Harvey, Jean-Claude Risset
 - computer music with Chris Chafe, Fernando Lopez-Lezcano, Max Mathews, Julius Smith
- Yale University, School of Music - Master of Music in composition 1990-92
- composition with Martin Bresnick, Anthony Davis, Jacob Druckman, Lucas Foss
 - electronic and computer music with Jonathan Berger, Jack Vees
- Eastman School of Music - Bachelor of Music in violin performance, with distinction 1986-90
- composition with Samuel Adler, Warren Benson
 - electronic music with Allan Schindler
 - violin with Charles Castleman, Daniel Stepner
 - chamber music with the Cleveland Quartet

Teaching:

- University of Montana, School of Music, Missoula, MT 2002-present
- Tenured Associate Professor, Division Chair of Composition and Music Technology
 - teach Composition I class; Composition III, IV, & V lessons; Digital Audio and Multitracking class; Sequencing, Synthesis, and Sampling class; Interactivity and Digital Signal Processing class; Computer Music Programming class; Recording Techniques and Sound Design summer workshop
 - direct Composers Workshop/Pierrot Ensemble, Mountain Electroacoustic Laptop Ensemble
 - developed new Music Technology curriculum, Composition and Music Technology BA degree program
 - installed and maintain computer-music facilities: 8.2 surround Studio, 4.1 surround Workstation, 12-station Lab
 - established and organize annual Mountain Computer Music Festival, organize annual Composers Showcase
 - founded and manage student-employed Recording Service
- University of Montana, Vienna Program 2010
- taught Schoenberg and Expressionism class
 - coached and arranged performances for Pierrot Ensemble, Mountain Electroacoustic Laptop Ensemble
 - arranged lectures and masterclasses with Viennese composers and performers, tours of composition and research facilities
- CCRMA@Banff, The Banff Centre, Banff, Canada 2004
- taught Haptic Musical Devices summer workshop
- De Anza College, Creative Arts Division, Cupertino, CA 2002
- Instructor: taught Intermediate Electronic Music
- Center for Computer Research in Music and Acoustics (CCRMA), Stanford University, Stanford, CA 1997-99, 2002
- Instructor: taught programming with Max/MSP
 - Teaching Assistant: taught interactive computer music, digital signal processing, computer-assisted musical analysis
 - Summer Workshops: taught composing with Max, algorithms with Common Music, synthesis with Common Lisp Music
- Stanford University, Department of Music, Stanford, CA 1997-99
- Teaching Assistant: taught composition, music theory, ear training
- Yale University, School of Music, New Haven, CT 1991-92
- Teaching Assistant: taught music theory and ear training

Work:

- CCRMA, Stanford University, Stanford, CA
- Associate Technical Director 2001-02
 - concert organizer: quarterly CCRMA concerts, 1999-2002
 - 2002 CalArts/CCRMA/CRCA/CREATE/UCI exchange concerts, 2002 CCRMA/FEMS exchange concerts
 - 2001 CCM/CCRMA/CNMAT/CREAM exchange concerts, 2000 CCRMA/CNMAT exchange concerts
 - Mac OS computer systems administrator 1997-2002
 - Interim Technical Director 2000-01
- Harmony-Central.com, Inc., Palo Alto, CA 2000, 2001
- web designer and programmer
- Stanford University, Stanford, CA
- assistant to Karla Lemon: Alea II student composition concerts 1998-99
 - assistant to St. Lawrence String Quartet: student chamber music program and concerts 1998-99
- Haskins Laboratories, New Haven, CT 1993-94
- Research Assistant to Bruno Repp: musical perception and performance

- Center for Studies in Music Technology (CSMT), Yale University, New Haven, CT
- Research Associate and assistant to Jonathan Berger: audio analysis and signal processing 1992-94
 - Graduate Assistant: computer, equipment, and studio maintenance 1990-92
- Recording Services, Eastman School of Music, Rochester, NY 1987-89
- Work Study: recording engineer

Compositions and Performances:

Multiplication of Machines (2010), for flute, clarinet, violin, cello, piano, and interactive computer processing (30:20)

- *VI. Pendulum* to be performed by David Niethamer, Third Practice Electroacoustic Music Festival, Richmond, VA, 11/10
- performed by the Third Angle Ensemble, Myrna Loy Center for the Performing and Media Arts, Helena, MT, 08/10
- performed by the Third Angle Ensemble, Old Church, Portland, OR, 05/10

The Power of Slowing (2010), for wind ensemble (8:00)

- performed by the University of Montana Symphonic Wind Ensemble, University Theater, Missoula, MT, 05/10

Children's Garden (2009), for computer-processed sound (1:00)

- presented at the Concierto de Vox Novus, Centro de Investigaciones y Desarrollos Computacionales en Música, Departamento de Artes Musicales y Sonoras, Instituto Universitario Nacional del Arte, Buenos Aires, Argentina, 10/10
- presented at the International Computer Music Conference, SUNY Stony Brook, NY, 6/10
- presented at the 60x60 Dance, Canada Congress FOFA Gallery, Concordia College, Montreal, QC, 05/10

Playground (2009), for computer-processed sound and computer-generated animation (3:30)

- presented at the Virtual Playground concert, Sunday Night Multimedia Series, Montana State University, Bozeman, MT, 10/10
- presented at the Grand Opening ceremony of the Phyllis J. Washington Education Center, School of Education, University of Montana, Missoula, MT, 10/09

Brick by Brick (2009), for children's choir, marimba, and piano (3:00)

- performed by the Paxson Elementary School Choir at the Grand Opening ceremony of the Phyllis J. Washington Education Center, School of Education, University of Montana, Missoula, MT, 10/09

Beneath the Veneer (2009), for solo piano and chamber orchestra (15:00)

- performed by Christopher Hahn and the University of Montana Contemporary Chamber Players, "New Music in New Spaces", Missoula Art Museum, Missoula, MT, 04/09

Bells Resound (2008), for string quartet (7:20)

- performed at the wedding of Amanda Nelson and Luis Millán, Missoula Children's Theater, Missoula, MT, 08/08

Quietude (2008), for solo piano (8:30)

- performed by Christopher Hahn, "New Music in New Spaces", Missoula Art Museum, Missoula, MT, 04/09
- performed by Christopher Hahn, College Music Society Rocky Mountain Pacific Northwest SuperRegional Conference, University of Montana, Missoula, MT, 04/08
- performed by Christopher Hahn, "North by Northwest", CCRMA Stage, Stanford, CA, 02/08 and telematically at the Music Recital Hall, University of Montana, Missoula, MT, 02/08

Current Threat Level (music for the dance, I Feel Safer Now) (2008), for computer-processed sound (7:50)

- presented at the Beauty, Horror and Silence: The Electronic Arts and Music Festival, Harold Golen Gallery, Miami, FL, 12/09
- presented at "Unruly Music", University of Wisconsin, Peck School of the Arts, Milwaukee, WI, 04/09
- presented at the Mountain Computer Music Festival, University of Montana, Missoula, MT, 10/08
- presented at the Harvest Moon Festival, Oscar Peterson Concert Hall, Concordia University, Montreal, QC, 10/08
- presented at the International Computer Music Conference, Belfast, Ireland, 08/08
- performed by Headwaters Dance Company, Missoula Children's Theater, Missoula, MT, 02/08

Chipper/Shredder (1992/2007), for guitar, computer sequencer, and sampler (15:09)

- performed by Luis Millán, Northwest Guitar Festival, Phinney Neighborhood Center, Seattle, WA, 04/08
- performed by Zane Merritt, Elektronik Musik Festival, Lilly Hall, Butler University, Indianapolis, IN, 01/08
- performed by Luis Millán, Mountain Computer Music Festival, University of Montana, Missoula, MT, 09/07
- performed by Luis Millán, Faculty Recital, University of Montana, Missoula, MT, 09/07
- performed by Luis Millán, Guest Recital, Sheslow Auditorium, Drake University, Des Moines, IA, 09/07
- performed by Domonic Frasca, A Guitar Extravaganza, Yale School of Music, New Haven, CT, 11/95
- presented at Music for Hammers, Picks and Other Machines, Yale School of Music, New Haven, CT, 02/92

Metal, Wood, and Bone (2007), for electric violin and interactive computer processing (9:45)

- performed by Charles Nichols, Re:New Digital Arts Festival, Copenhagen, Denmark, 05/08
- performed by Charles Nichols, Bellingham Electronic Arts Festival, W. Washington University, Bellingham, WA, 04/08
- performed by Charles Nichols, Cybersounds Festival, Temple University, Philadelphia, PA, 02/07

Medical Records (From a Physician's Career) (2006), for clarinet, violin, and piano (15:47)

- performed by the Sapphire Trio, Sioux City Chamber Music Association, Sioux City, IA, 04/09
- performed (movement 2) by the Sapphire Trio, Ashurst Auditorium, Northern Arizona University, Flagstaff, AZ, 04/08
- performed by the Sapphire Trio, Professionalism at Academic Medical Centers Symposium, Mayo Clinic, Rochester, MN, 10/07
- performed by the Sapphire Trio, Association of American Medical Colleges Annual Meeting, Washington State Convention Center, Seattle, WA, 10/06

De Grijze Boom (2006), for tenor (meta)saxophone and interactive computer processing (4:10)

- to be performed by Sue Fancher, Third Practice Electroacoustic Music Festival, University of Richmond, VA, 11/10
- performed by Matthew Burtner, NWEAMO Festival, Roulette, New York, NY, 10/07
- performed by Sam White, NWEAMO Festival, University of Colorado, Boulder, CO, 10/07
- performed by Matthew Burtner, Selmer Paris Showroom Performance Series, Paris, France, 3/07
- performed by Sam White, Afternoon Student Recital, University of Montana, Missoula, MT, 10/06
- performed by Sam White, Mountain Computer Music Festival, University of Montana, Missoula, MT, 09/06
- performed by Matthew Burtner, CCRMA Concert, Stanford University, Stanford, CA, 07/06

The Montana Suite: Boulder Batholith (movements 1, 3-5, 7-10) (2006), for computer-processed sound (15:48)

- performed by the Headwaters Dance Company, Missoula Children's Theater, Missoula, MT, 02/10
- presented at the Mountain Computer Music Festival, University of Montana, Missoula, MT, 09/06
- presented in the NWEAMO Festival "Jukebox", Doug Fir Lounge, Portland, OR, 09/06, Smith Recital Hall, SDSU, San Diego, CA, 09/06, The Apple Store, SOHO, New York, NY, 10/06
- performed by the Headwaters Dance Company, The Mother Lode Theatre, Butte, MT, 03/06
- performed by the Headwaters Dance Company, Montana Artists Refuge Benefit, Boulder, MT, 03/06
- performed by the Headwaters Dance Company, Missoula Children's Theater, Missoula, MT, 02/06

The Montana Suite: Boulder Batholith (movements 2 and 6) (2006), for clarinet, violin, and piano (6:19)

- performed (movement 2) by Christopher Kirkpatrick, Margaret Baldrige, Christopher Hahn, Margaret Baldrige Faculty Recital, University of Montana, Missoula, MT, 04/10
- performed (movement 2) by the Sapphire Trio, Maxine Ramey Faculty Recital, University of Montana, Missoula, MT, 09/06
- performed by the Sapphire Trio and Headwaters Dance Company, Missoula Children's Theater, Missoula, MT, 02/06

The Air Inside Our Heads (2005), for electric violin and interactive computer processing (4:27)

- performed by Charles Nichols, Bellingham Electronic Arts Festival, W. Washington University, Bellingham, WA, 04/08
- performed by Charles Nichols, Cybersounds Festival, Temple University, Philadelphia, PA, 02/07
- performed by Charles Nichols, CCRMA Concert, Stanford University, Stanford, CA, 07/06
- performed by Charles Nichols, SEAMUS National Conference, University of Oregon, Eugene, OR, 03/06
- performed by Charles Nichols, SC Global, Washington State Convention and Trade Center, Seattle, WA, 11/05
- performed by Charles Nichols, Westminster Choir College, Princeton, NJ, 11/05
- performed by Charles Nichols, Society of Composers Inc. Region VIII Conference, University of Montana, Missoula, MT, 10/06
- performed by Charles Nichols, MusicAcoustica Mix Festival, Beijing, China, 10/05
- performed by Charles Nichols, Mountain Computer Music Festival, University of Montana, Missoula, MT, 09/05
- performed by Charles Nichols, SIGGRAPH, Los Angeles Convention Center, Los Angeles, CA, 08/05
- performed by Charles Nichols, InterPlay: Loose Minds in the Box, an interactive videoconferenced multimedia collaboration, with the Universities of Alaska, Illinois, Maryland, Montana, Purdue, and Utah, 04/05

The Imprisonment of Thought and Let Loose the Mind (2005), for electric violin and percussion, over Internet2 (5:00, 5:00)

- performed by C. Nichols and S. Deal, SC Global Washington State Convention and Trade Center, Seattle, WA, 11/05
- performed by C. Nichols and S. Deal, SIGGRAPH, Los Angeles Convention Center, Los Angeles, CA, 08/05
- performed by Charles Nichols and Scott Deal, InterPlay: Loose Minds in the Box, U. of Montana and Alaska, 04/05

The Blue Box (2005), for motion-capture system, MIDI controller, and interactive computer-processed sound, over Internet2 (5:00) or quadraphonic computer-processed sound (7:09)

- performed by Charles Nichols at the International Computer Music Conference, Tulane University, New Orleans, LA, 11/06
- presented at the IMMArts TechArt06 Exhibition, Northern Illinois University, DeKalb, IL, 05/06
- performed by J. Hayes and C. Nichols, SC Global, Washington State Convention and Trade Center, Seattle, WA, 11/05
- presented at the Mountain Computer Music Festival, University of Montana, Missoula, MT, 09/05
- performed by J. Hayes and C. Nichols, SIGGRAPH, Los Angeles Convention Center, Los Angeles, CA, 08/05
- performed by Joe Hayes and Charles Nichols, InterPlay: Loose Minds in the Box, Purdue U. and U. of Montana, 04/05

Catalysis (2005), for orchestra (11:40)

- performed by the University of Montana Symphony Orchestra, University of Montana, Missoula, MT, 04/05

Posture (music for the dance, The First Seating) (2003), for computer-processed sound (8:54)

- presented at Festival 36: New Music 2006, Ball State University, Muncie, IN, 02/06
- presented at the ÉuCuE, Concordia University, Montreal, Canada, 09/04
- presented at the Mountain Computer Music Festival, University of Montana, Missoula, MT, 09/04
- presented at the Rencontres Musiques Nouvelles, Académie de Musique de Lunel, Lunel, France, 06/04
- performed by the Montana Transport Company, University of Montana, Missoula, MT, 11/03

- Guqin** (2003), for electric violin, interactive computer processing, and quadraphonic spatialization (5:09)
- performed by Charles Nichols, Cybersounds Festival, Temple University, Philadelphia, PA, 02/07
 - presented on the Martian Gardens radio program, WMUA FM 91.1, Amherst, MA, 05/06
 - performed by Charles Nichols, Westminster Choir College, Princeton, NJ, 11/05
 - included on the Innova CD, 541 [Volume 1] Music From Stanford, Innova 635, 2005
 - presented in the NWEAMO Festival "Jukebox", Interstate Firehouse Cultural Center, Portland, OR, 10/04
 - performed by Charles Nichols, Mountain Computer Music Festival, University of Montana, Missoula, MT, 09/04
 - performed by Charles Nichols, Pan Music Festival, Seoul, Korea, 11/03
 - performed by Charles Nichols, The Electric Rainbow Coalition, Dartmouth College, Hanover, NH, 08/03
 - performed by Charles Nichols, Technosonics, University of Virginia, Charlottesville, VA, 02/03
- Eulogy (Pierce)** (2002), for computer-generated sound (1:03)
- included on the Capstone Records CD, *60x60*, CPS-8744, 2004
 - presented at the John Pierce Memorial Concert, Stanford University, Stanford, CA, 04/02
- Strata** (2001), for flute, interactive computer processing, and quadraphonic spatialization (15:22)
- performed by Patti Monson, Greenfield Hall, Manhattan School of Music, New York, NY, 10/05
 - performed by Patti Monson, Bang on a Can Summer Music Institute, Mass MoCA, North Adams, MA, 07/05
 - performed by Maggie Schuberg, Composers' Showcase, University of Montana, Missoula, MT, 04/02
 - performed by Jessica Brown, SCI Student National Conference "Praecepta Musica Nova", Bowling Green State University, Bowling Green, OH, 03/02
 - performed by Erika Leake, Florida Electroacoustic Music Festival, University of Florida, Gainesville, FL, 03/02
 - performed by Heesoo Kim, NOW Music Festival, San Francisco, CA, 12/01
 - performed by Patricio de la Cuadra, Digital Music Under the Stars, Stanford University, Stanford, CA, 07/01
 - performed by Helen Bledsoe, Stanford University, Stanford, CA, 03/01
- Epithalamion 7 (Souls are Dancing), 8 (The Orchard), and 9 (Your Eyes)** (1999), for soprano and violin (8:34)
- performed by Painted Carp, Westminster Choir College, Princeton, NJ, 11/05
 - performed by Deborah Kavasch and Charles Nichols, CMS Pacific Central Chapter Annual Conference, CSU Stanislaus, Turlock, CA, 02/02
 - performed by Painted Carp, Morgan/Chu Wedding, Palo Alto, CA, 10/99
- Interpose** (1995/1999), for guitar and computer-generated sound (14:33)
- performed by Miguel Angelo, Ideas, Virtuosismo y Electroacústica, Saltillo Coahuila, México, 08/04
 - performed by Carsten Radtke, Freies Musikzentrum, München, Germany, 02/02
 - presented at the Festival Internacional de Musica Electroacustica "Primavera en la Havana 2000", Havana, Cuba, 03/00
 - performed by Cem Duruöz, CNMAT/CCRMA Concert Exchange, UC Berkeley, Berkeley, CA, 04/00
 - performed by Cem Duruöz, CMS Pacific Central Chapter Annual Conference, CSU Stanislaus, Turlock, CA, 02/00
 - performed by Cem Duruöz, CCRMA Concert, Stanford University, Stanford, CA, 12/99
 - performed by Magnus Andersson, June in Buffalo, SUNY Buffalo, Buffalo, NY, 06/99
- Extensions** (1998), for MIDI violin, interactive computer programming, and computer-generated sound (13:40)
- performed by Charles Nichols, CCRMA Concert, Stanford University, Stanford, CA, 10/98
- Clippings 1/17/97 (Helium)** (1997), for mixed voices, flute, and violin
- performed at Scroll, Stanford University, Stanford, CA, 03/97
- Clippings 2/3/97 (Ritual)** (1997), for mixed voices, chimes, and snare drum
- performed at Scroll, Stanford University, Stanford, CA, 03/97
- Stasis** (1994), for soprano, MIDI violin, interactive computer programming, and sampler (23:53)
- performed by Painted Carp, Electronic Music Concert, SUNY Stony Brook, Stony Brook, NY, 02/96
 - performed by Painted Carp, Tamworth Music Festival, Tamworth, NH, 08/94
 - performed by Painted Carp, Wired, Yale University, New Haven, CT, 02/94
- Meditation 2 (of the tie that binds)** (1993), for organ
- performed by Mark Haberman, Nichols/Baldrige Wedding, Sioux City, IA, 08/93
- Epithalamion 5 (Union)** (1993), for tenor and flute
- performed by Lori Linder and Greg Fuller, Nichols/Baldrige Wedding, Sioux City, IA, 08/93
- Epithalamion 4 (Processional) and Epithalamion 6 (Recessional)** (1993), for trumpet and organ
- performed by Mark Haberman and Kevin Linder, Nichols/Baldrige Wedding, Sioux City, IA, 08/93
- Epithalamion 2 and Epithalamion 3** (1992), for oboe and brass quintet
- performed at the Stemple/Lansdowne Wedding, Wichita, KS, 12/92
- Etude** (1992), for solo violin
- performed by Margaret Nichols, Eastman School of Music, Rochester, NY, 08/92
- Above, One Floor** (1992), for orchestra
- read by the Yale Philharmonia, Yale University, New Haven, CT, 03/92
- Meditation (for a thousand tongues)** (1991), for organ
- performed by Mark Haberman, Grace United Methodist Church, Sioux City, IA, 12/91
- Fanfarefornow** (1991), for orchestra
- read by the Yale Philharmonia, Yale University, New Haven, CT, 04/91

Gestures (1990), for solo violin

- performed by Charles Nichols, New Music New Haven, Yale University, New Haven, CT, 09/91

Madman/Littleboy (1991), for solo harp

- performed by Debra Thalberg, The Son of Bucket Concert, New Haven, CT, 02/92
- performed by Debra Thalberg, Yale University, New Haven, CT, 02/91

She (1990), for soprano and viola

- performed by Laura Asselta and Elizabeth Wiegler, Eastman School of Music, Rochester, NY, 04/90

Wildflower (1990), for violin and harp

- performed by Charles Nichols and Debra Thalberg, Eastman School of Music, Rochester, NY, 03/90

Scenes of Brunei (1989), for solo piano

- performed by Elizabeth Azcona, Bandar Seri Begawan, Brunei, 01/90

Epithalamion (1989), for trumpet, two violins, and two cellos

- recorded at the Eastman School of Music, Rochester, NY, 12/89

Of Human Mechanics (1989), for flute, cello, and piano

- performed by Lauren Varuzzo, Sabrina Lackey, and Elizabeth Azcona, Eastman School of Music, Rochester, NY, 05/90

Commissions and Awards:

Myrna Loy Center for the Performing and Media Arts, 2009

commission: *Multiplicity of Machines*, for Pierrot ensemble and interactive computer processing

University of Montana, School of Education, 2009

commissions: *Brick by Brick*, for children's choir, marimba, and piano; *Playground*, for computer-processed sound

Missoula Arts Museum, 2008

commission: *Beneath the Veneer*, for solo piano and chamber orchestra

Headwaters Dance Company, 2008

commission: *Current Threat Level*, for computer-processed sound

Cybersounds Festival, Boyer College of Music and Dance, Temple University, 2007

commission: *Metal, Wood, and Bone* for electric violin and interactive computer-processing

Association of American Medical Colleges and Institute of Medicine and Humanities, 2006

commission: *Medical Records*, for clarinet, violin, and piano

The Peoria Civic Federation, The Peoria Prize for Creativity, 2006

award: semifinalist for the Interplay *Loose Minds in a Box*

33e Concours International de Musique et d'Art Sonore Electroacoustiques de Bourges,

Degré II Quadrivium, 1e catégorie: œuvre pour la danse ou le théâtre 2006

award: Selection for *Montana Suite: Boulder Batholith*, for computer-processed sound

KUFM, Montana Public Radio, 2006

commission: theme music for *The Plant Detective* radio show

National Endowment for the Arts, 2005

grant: Challenge America Grant for the composition of *Montana Suite*

Headwaters Dance Company, 2005

commission: *Montana Suite*, for computer-processed sound, soprano, and violin, clarinet, and piano trio

University of Montana, Research and Creativity Committee, 2004

grant: Faculty Development Grant for the composition of *Catalysis*, for symphony orchestra

University of Montana Symphony Orchestra, 2004

commission: *Catalysis*, for symphony orchestra

31e Concours International de Musique et d'Art Sonore Electroacoustiques de Bourges,

Degré II Trivium B, 1e catégorie: œuvre pour la danse ou le théâtre 2004

award: Mention for *Posture (music for the dance, The First Seating)*, for quadraphonic computer-processed sound

American Society of Composers, Authors and Publishers, 2010, 2009, 2008, 2007, 2006, 2004

award: ASCAP Plus Award for performances during 2009, 2008, 2007, 2006, 2005, 2003

Montana Transport Company, 2003

commission: *Posture (music for the dance, The First Seating)*, for quadraphonic computer-processed sound

Stanford University School of Humanities and Sciences, 2000

grant: Graduate Research Opportunity grant for the design and development of the *vBow*

Recordings:

541 [Volume 1]: *Music from Stanford*, Innova Recordings, Innova 635, includes *Strata 3: Guqin 60x60*, Capstone Records, CPS-8744, includes *Eulogy* (Pierce)

Publications:

- Nichols, C., review of Mountain Computer Music Festival 2008
Journal of the Society for Electro-Acoustic Music in the United States, in press
- Nichols, C., et al., "Musical Performance Over Internet2 Using The AccessGrid",
Proceedings of the International Computer Music Conference (ICMC), New Orleans, LA, 11/06
- Nichols, C., review of Matthew Burtner's CD, *Metasaxophone Colossus*
Journal of the Society for Electro-Acoustic Music in the United States, Volume 18, No. 2, Fall 2005
- Nichols, C., "The vBow: An Expressive Musical Controller Haptic Human-Computer Interface",
Ph.D. Dissertation, Department of Music, Stanford University, 08/03
- Nichols, C., "The vBow: A Four Degrees of Freedom Haptic Musical Controller Human-Computer Interface",
Proceedings of the International Computer Music Conference (ICMC), Göteborg, Sweden, 09/02
- Nichols, C., *Strata 2*, for flute and computer,
Society of Composers, Inc. Journal of Music Scores, Volume 32, 08/02
- Nichols, C., "The vBow: A Virtual Violin Bow Controller for Mapping Gesture to Synthesis with Haptic Feedback",
Organised Sound, Volume 7, Issue 2, 08/02
- Nichols, C., "The vBow: Development of a Virtual Violin Bow Haptic Human-Computer Interface",
Proceedings of the International Conference on New Interfaces for Musical Expression (NIME), Dublin, Ireland, 05/02
- Serafin, S., M. Burtner, C. Nichols, and S. O'Modhrain "Expressive Controllers for Bowed String Physical Models",
Proceedings of the COST-G6 Conference on Digital Audio Effects (DAFx), Limerick, Ireland, 12/01
- Nichols, C., "The vBow: Two Versions of a Virtual Violin Bow Controller",
Proceedings of the International Symposium of Musical Acoustics (ISMA), Perugia, Italy, 09/01
- Nichols, C., "The vBow: Haptic Feedback and Sound Synthesis of a Virtual Violin Bow Controller",
Journal of the Society for Electro-Acoustic Music in the United States, Volume XVI.1, 2001
- Nichols, C., "The vBow: A Haptic Musical Controller Human-Computer Interface",
Proceedings of the International Computer Music Conference (ICMC), Berlin, Germany, 08/00
- Berger, J., and C. Nichols, "Brahms at the Piano: An Analysis of Data from the Brahms Cylinder",
Leonardo Music Journal, Volume 4, 1994
- Berger, J., and C. Nichols "Using Wavelet Based Analysis and Resynthesis to Uncover the Past",
Proceedings of the International Computer Music Conference (ICMC), Aarhus, Denmark, 09/94

Conferences and Festivals:

- Third Practice Electroacoustic Music Festival, University of Richmond, VA, 11/10
compositions: *De Grijze Boom*, for tenor saxophone and computer, *Pendulum*, for clarinet and computer
- Mountain Computer Music Festival, Missoula, MT, 09/10
performance: Joynes: *On The Other Side*, for voice, violin, computer, and Live-Cinema with Gary James Joynes, aka Clinker
- V'Elak Gala, Brut Konzerthaus, Vienna, Austria, 07/10
performance: MELEe (Mountain Electroacoustic Laptop Ensemble)
- International Computer Music Conference (ICMC), SUNY Stony Brook, NY, 06/10
composition: *Children's Garden*, for stereo computer-processed sound
- Beauty, Horror and Silence: The Electronic Arts and Music Festival, Harold Golen Gallery, Miami, FL, 12/09
composition: *Current Threat Level*, for 8-channel computer-processed sound
- MITO Settembre Musica, Torino Milano Festival Internazionale della Musica, Milan, Italy, 09/09
telematic performance: Riley, *In C* and free improvisation with Chris Chafe, Chryssie Nanou, and SLOrk
- Harvest Moon Festival, Oscar Peterson Concert Hall, Concordia University, Montreal, QC, 10/08
composition: *Current Threat Level*, for 8-channel computer-processed sound
- Mountain Computer Music Festival, University of Montana, Missoula, MT, 10/08
composition: *Current Threat Level*, for 8-channel computer-processed sound
- International Computer Music Conference (ICMC), Queen's University, Belfast, N. Ireland, 08/08
composition: *Current Threat Level*, for 8-channel computer-processed sound
- Re:New Digital Arts Festival, Copenhagen, Denmark, 05/08
composition and performance: *Metal, Wood, and Bone*, for electric violin and interactive computer-processing
- Bellingham Electronic Arts Festival, Western Washington University, Bellingham, WA, 04/08
composition and performance: *Metal, Wood, and Bone*, for electric violin and interactive computer-processing
- Northwest Guitar Festival, Phinney Neighborhood Center, Seattle, WA, 04/08
composition: *Chipper/Shredder*, for guitar, computer-sequencer, and sampler
- CMS Rocky Mountain Pacific Northwest SuperRegional Conference, University of Montana, Missoula, MT, 04/08
composition: *Quietude*, for solo piano

Elektronik Musik Festival, Lilly Hall, Butler University, Indianapolis, IN, 01/08
composition: *Chipper/Shredder*, for guitar, computer-sequencer, and sampler

Professionalism at Academic Medical Centers Symposium, Mayo Clinic, Rochester, MN, 10/07
composition: *Medical Records*, for clarinet, violin, and piano

Northwest Electro-Acoustic Music Organization Festival (NWEAMO), University of Colorado, Boulder, CO and
Roulette, New York, NY, 10/07
composition: *De Grijsze Boom*, for tenor saxophone and interactive computer-processing

Mountain Computer Music Festival, University of Montana, Missoula, MT, 10/07
composition: *Chipper/Shredder*, for guitar, computer-sequencer, and sampler

Cybersounds, Boyer College of Music and Dance, Temple University, Philadelphia, PA, 02/07
composition and performance: *Metal, Wood, and Bone*, for electric violin and interactive computer-processing

International Computer Music Conference (ICMC), Tulane University, New Orleans, LA, 11/06
composition and performance: *The Blue Box*, for dance video, MIDI controller, and computer programming
paper: "Musical Performance Over Internet2 Using The AccessGrid"

Association of American Medical Colleges (AAMC) Annual Meeting, Washington State Convention Center, Seattle, WA, 10/06
composition: *Medical Records*, for clarinet, violin, and piano

Mountain Computer Music Festival (MCMF), University of Montana, Missoula, MT, 09/06
compositions: *De Grijsze Boom*, for tenor saxophone and interactive computer-processing,
Montana Suite: Boulder Batholith (movements 1, 3, 5, and 8), for computer-processed sound

Northwest Electro-Acoustic Music Organization Festival (NWEAMO) "Jukebox",
Doug Fir Lounge, Portland, OR, 09/06, Smith Recital Hall, SDSU, San Diego, CA, 09/06,
The Apple Store, SOHO, New York, NY, 10/06
composition: *Montana Suite: Boulder Batholith* (movements 1, 3, 5, and 8), for computer-processed sound

IMMArts TechArt06 Exhibition, Northern Illinois University, DeKalb, IL, 05/06
composition: *The Blue Box*, for quadraphonic computer-processed sound

Society of ElectroAcoustic Music in the United States National Conference (SEAMUS), U. of Oregon, Eugene, OR, 03/06
composition and performance: *The Air Inside Our Heads*, for electric violin and computer

International Conference for High Performance Networking, Computing, and Storage (SC Global),
Washington State Convention and Trade Center, Seattle, WA, 11/05
compositions and performance: *The Air Inside Our Heads*, for electric violin and computer,
Imprisonment of Thought and *Let Loose the Mind*, for electric violin and percussion,
The Blue Box, for dancer, motion-capture system, MIDI controller, and computer

Society of Composers Inc. Region VIII Conference, University of Montana, Missoula, MT, 10/06
composition and performance: *The Air Inside Our Heads*, for electric violin and computer

MusicAcoustica Mix, Beijing, China, 10/05
composition and performance: *The Air Inside Our Heads*, for electric violin and computer

Mountain Computer Music Festival (MCMF), University of Montana, Missoula, MT, 09/05
composition and performance: *The Air Inside Our Heads*, for electric violin and computer,
The Blue Box, for quadraphonic computer-processed sound

International Conference on Computer Graphics and Interactive Techniques (SIGGRAPH),
Los Angeles Convention Center, Los Angeles, CA, 08/05
compositions and performance: *The Air Inside Our Heads*, for electric violin and computer,
Imprisonment of Thought and *Let Loose the Mind*, for electric violin and percussion,
The Blue Box, for dancer, motion-capture system, MIDI controller, and computer

Bang on a Can Institute, Massachusetts Museum of Contemporary Art (Mass MOCA), North Adams, MA, 07/05
composition: *Strata*, for flute and interactive computer processing, performed by Patti Monson, flute

Northwest Electro-Acoustic Music Organization Festival (NWEAMO) "Jukebox",
Interstate Firehouse Cultural Center, Portland, OR, 10/04
composition: *Gugin*, for electronic violin and interactive computer programming

Electroacoustiques Université Concordia (ÉuCuE), Concordia University, Montreal, Canada, 09/04
composition: *Posture*, for quadraphonic computer-generated sound

Mountain Computer Music Festival (MCMF), University of Montana, Missoula, MT, 09/04
composition and performance: *Gugin*, for electronic violin and interactive computer processing
and *Posture* for quadraphonic computer-processed sound

Électrolune, Rencontres Musiques Nouvelles, Académie de Musique de Lunel, Lunel, France, 06/04
composition: *Posture*, for quadraphonic computer-generated sound

Pan Music Festival, Seoul, Korea, 11/03
composition and performance: *Gugin*, for electronic violin and interactive computer programming

The Electric Rainbow Coalition: A Festival of Electro-Acoustic Music, Dartmouth College, Hanover, NH, 08/03
composition and performance: *Gugin*, for electronic violin and interactive computer programming

Technosonics, University of Virginia, Charlottesville, VA, 02/03
composition and performance: *Gugin*, for electronic violin and interactive computer programming

International Computer Music Conference (ICMC), Göteborg, Sweden, 09/02
 paper: "The vBow: A Four Degrees of Freedom Haptic Musical Controller Human-Computer Interface"

International Conference on New Interfaces for Musical Expression (NIME), Dublin, Ireland, 05/02
 paper: "The vBow: Development of a Virtual Violin Bow Haptic Human-Computer Interface"

Composers' Showcase, University of Montana, Missoula, MT, 04/02
 guest composer, lecture, composition: *Strata*, for flute and computer, performed by Maggie Schuberg, flute

Australian Flute Festival, South Melbourne, Australia, 03/02
 score: *Strata*, for flute and interactive computer programming

SCI Student National Conference "Praecepta Musica Nova", Bowling Green State University, Bowling Green, OH, 03/02
 composition: *Strata*, for flute and interactive computer programming, performed by Jessica Brown, flute

Florida Electroacoustic Music Festival (FEMF), University of Florida, Gainesville, FL, 03/02
 curated concert, composition: *Strata*, for flute and computer, performed by Erika Leake, flute

College Music Society Pacific Central Chapter Annual Conference, CSU Stanislaus, Turlock, CA, 02/02
 composition and performance: *Epithalamion 7-10*, for soprano and violin, performed with Deborah Kavasch, soprano

NOW Music Festival, San Francisco, CA, 12/01
 composition: *Strata*, for flute and interactive computer programming, performed by Heesoo Kim, flute

COST-G6 Conference on Digital Audio Effects (DAFx), Limerick, Ireland, 12/01
 paper and poster: "Expressive Controllers for Bowed String Physical Models"

International Symposium of Musical Acoustics (ISMA), Perugia, Italy, 9/01
 paper and poster: "The vBow: Two Versions of a Virtual Violin Bow Controller"

Forum IRCAM, Paris, France, 04/01
 presentation: "The vBow: Haptic Feedback and Sound Synthesis of a Virtual Violin Bow Controller"

Society of ElectroAcoustic Music in the United States National Conference (SEAMUS), LSU, Baton Rouge, LA, 03/01
 presentation: "The vBow: Experiments in the Haptic Feedback of a Musical Controller Human-Computer Interface"

International Computer Music Conference (ICMC), Berlin, Germany, 08/00
 paper: "The vBow: A Haptic Musical Controller Human-Computer Interface"

College Music Society Workshop: Women and Music Technology, Agnes Scott College, Atlanta, GA, 03/00
 performance: *Go Traveling With Us*, for processed voice and electric violin, written by Beryl Lee Heuermann

Festival Internacional de Musica Electroacustica "Primavera en la Havana 2000", Havana, Cuba, 03/00
 composition: *Interpose*, for guitar and computer-generated sound, recording

College Music Society Pacific Central Chapter Annual Conference, CSU Stanislaus, Turlock, CA, 02/00
 composition: *Interpose*, for guitar and computer-generated sound, performed by Cem Duruöz, guitar

June in Buffalo, SUNY at Buffalo, Buffalo, NY, 06/99
 composition: *Interpose*, for guitar and computer-generated sound, performed by Magnus Andersson, guitar

West Coast Conference for Music Theory and Analysis, Stanford University, Stanford, CA, 04/99
 poster: "Hybrid Additive Synthesis for *Interpose*, for guitar and computer-generated sound"

Society of Composers, Inc. (SCI) Region VIII Conference, University of Montana, Missoula, MT, 11/98
 performance: *Go Traveling With Us*, for processed voice and electric violin, written by Beryl Lee Heuermann

International New Music Festival, University of San Diego, San Diego, CA, 10/97
 performance: *the fire*, for processed voice and electric violin, written by Douglas Knehans

Mixed Messages Festival, Context Studios, New York, NY, 05/96
 performance: *For A Birthday*, for voice and electric violin, written by Mark Howell

A Guitar Extravaganza, Yale School of Music, New Haven, CT, 11/95
 composition: *Chipper/Shredder*, for guitar, computer sequencer, and sampler, Domonic Frasca, guitar

International Computer Music Conference (ICMC), Aarhus, Denmark, 09/94
 paper: "Using Wavelet Based Analysis and Resynthesis to Uncover the Past"

Tamworth Music Festival, Tamworth, NH, 08/94
 composition and performance: *Stasis*, for MIDI violin, soprano, computer, and sampler, performed by Painted Carp

Lectures and Performances:

Replugged, Vienna, Austria, 07/10
 performance: MELEe (Mountain Electroacoustic Laptop Ensemble)

United Nations *Resonations*, United Nations Headquarters, New York, NY, 11/09
 telematic performance: structured improvisations with musicians at Banff, Belfast, NYC, San Diego, and Seoul

IUPUI Telematic Ensemble, School of Music Concert Hall, Indiana University Purdue University Indianapolis, IN, 04/08
 telematic performance: structured improvisation with MELEe (Mountain Electroacoustic Laptop Ensemble)

Sonic Explorations, Cohen Family Studio Theater, College-Conservatory of Music, University of Cincinnati, OH, 04/08
 telematic performance: structured improvisation with Mara Helmuth, qin and Scott Deal, percussion

Professionalism at Academic Medical Centers Symposium, Mayo Clinic, Rochester, MN, 10/07
 lecture: The Context and Construction of *Medical Records*
 composition: *Medical Records*, for clarinet, violin, and piano

Boyer College of Music and Dance, Temple University, Philadelphia, PA, 02/07
 lecture: composition and computer music

CCRMA, Stanford University, Stanford, CA, 07/06
 performance: Nichols, *The Air Inside Our Heads*
 composition: *De Grijze Boom*, for metasaxophone and computer, Matthew Burtner, metasaxophone

Westminster Choir College, Princeton, NJ, 11/05
 performance: Nichols, *Guqin* and *The Air Inside Our Heads*,
 Nichols, *Epithalamion 7, 8, & 10*, and Heuermann, *Go Traveling With Us* with Lee Heuermann,
 Takemitsu, *From Far Beyond Chrysanthemums and November Fog* with Eric Hung

Manhattan School of Music, New York, NY, 10/05
 lecture: interactive computer music

Loose Minds in a Box, 04/05
 telematic performance: multimedia collaboration with performers, artists, and technicians at seven universities

Institute of Medicine and Humanities, St. Patrick's Hospital, Missoula, MT, 11/03
 lecture: *Genome Music* for the *Genetics Comes Alive: The Worlds of Art and Music* program
 of the *Recent Advances in Human Genetics: Promises and Perils for the 21st Century* lecture series

University of Virginia, Charlottesville, VA, 02/03
 lecture: interactive computer music

University of Montana, Missoula, MT, 04/02
 lecture: composition and computer music

Ball State University, Muncie, IN, 03/02
 lecture: composition and computer music

University of Northern Iowa, Cedar Falls, IA, 11/92
 lecture: composition

Committees:

Steering Committee, Faculty Development Office, University of Montana, 2010-present
 Faculty Evaluation Committee, School of Music, University of Montana, 2010-present
 Website Committee, School of Music, University of Montana, 2009-present
 Musical Instrument and Equipment Committee, School of Music, University of Montana, 2008-present
 Curriculum Committee, School of Music, University of Montana, 2002-present
 Study Abroad Committee, School of Music, University of Montana, 2007-2010
 Longman Publishers Book Review Jury, 2010
 International Computer Music Conference Paper Review Jury, 2004, 2006, 2009
 International Computer Music Conference Music Review Jury, 2009
Computer Music Journal Paper Review Jury, 2009
 Natural Sciences and Engineering Research Council of Canada Strategic Project Grants Review Jury, 2008
 Society of Electroacoustic Music in the United States Conference Paper Review Jury, 2008
Jazz Perspectives Journal Paper Review Jury, 2008
 College Music Society, Rocky Mountain Pacific Northwest SuperRegional Conference, Composition Review Committee, 2008
 Faculty Senate, University of Montana, 2005-2008
 Unit Standards Committee, Department of Music, University of Montana, 2003-2008
 Technology Committee, School of Fine Arts, University of Montana, 2002-2008
 Regents Distinguished Professor Selection Committee, University of Montana, 2007
 Academic Information Technology Advisory Committee, University of Montana, 2006-2007
 Research and Creativity Committee, University of Montana, 2005-2007
 Mansfield Library Dean Search Committee, College of Arts and Sciences, University of Montana, 2005-2006
 Presentation and Technology Services Manager Search Committee, Information Technology Office, U of Montana, 2005-2006
 Library Committee, University of Montana, 2004-2005
 International Conference on New Interfaces for Musical Expression Paper Review Jury, 2003
 Music History Search committee, Department of Music, University of Montana, 2003
 Education in a Technologically Advanced World Committee, University of Montana, 2002-2003
 Network Upgrade Committee, University of Montana, 2002-2003
 Faculty Executive Committee, Department of Music, University of Montana, 2002-2003
Journal of the Society for Electro-Acoustic Music in the United States Paper Review Jury, 2002
 CCRMA Committee, Department of Music, Stanford University, 2000-2002