

# JAIME E. OLIVER

Lima, 1979

Computer Music Scholar, Composer and Performer

Columbia University  
Department of Music  
621 Dodge Hall - MC 1813  
2960 Broadway  
New York 10027  
(212) 854-3825

438 West 116th Street Apt. 44  
New York, NY 10027  
(858) 750-0924  
[jo2357@columbia.edu](mailto:jo2357@columbia.edu)  
[jaimе.oliver@gmail.com](mailto:jaimе.oliver@gmail.com)  
[www.jaimeoliver.pe](http://www.jaimeoliver.pe)

**Current Position:** Mellon Post-Doctoral Fellow, Composition, Columbia University

## EDUCATION

Ph.D., Computer Music      *University of California, San Diego.* 2008-11  
M.A., Computer Music      *University of California, San Diego.* 2006-08  
Composition                *National Conservatory of Music.* Lima, Perú, 2003.

**Dissertation:** *A Computer Music Instrumentarium*

Committee: Miller Puckette (chair) David Wessel, Gerald Balzano. (Music Faculty)  
Amy Alexander (Visual Arts), Jim Hollan (Cognitive Science)

## GRANTS, SCHOLARSHIPS & FELLOWSHIPS

2011-13      Mellon Post-Doctoral Fellow, Composition, *Columbia University*, New York, USA.  
2013      Musical Research Residence at IRCAM, *Institut de Recherche et Coordination Acoustique/Musique*, Paris, France. (May-Sept:2013, highest scoring application)  
2012      Composer in Residence at ZKM, *Institute for Music and Acoustics*, Karlsruhe, Germany.  
2010      Dissertation Fellowship awarded by the *Division of Arts and Humanities of the University of California, San Diego.*  
2009      *Meet the Composer* grant to perform at the Thingamajigs Festival.  
2009      Scholarship, awarded by the *Friends of the International Center Organization, University of California, San Diego.*  
2008-12      Full Tuition Fellowship. *Department of Music, University of California, San Diego.*  
2006-08      Scholarship, awarded by the *Fulbright Commission.*  
2005      Grant awarded by the Spanish Ministry of Culture to follow a course in Computer Music Composition at the *Center for Contemporary Music (LIEM/CDMC)* in the Reina Sofía Contemporary Art Center.

## AWARDS & HONORS

- 2010 GIGA-HERTZ-PREIS  
*Special Prize for Technical Innovation* for the piece *Silent Construction 2* for MANO Controller.  
Awarded by the ZKM Institute, Karlsruhe, Germany
- 2010 FILE PRIX LUX  
*1st Prize, Electronic Sonority*, for the piece *Silent Construction 1* and the *Silent Percussion Project*.  
Awarded by the International Festival for Electronic Language (FILE), Sao Paulo, Brazil.
- 2009 BOURGES ELECTRONIC ARTS COMPETITION  
Finalist in Electronic Performance Category for the piece *Silent Construction 1* for Silent Drum Controller
- 2009 GUTHMAN MUSICAL INSTRUMENT COMPETITION  
*1st Prize* for the Silent Drum Controller  
Awarded by the Georgia Tech Center for Music Technology, Atlanta, GA, USA.

## RECENT WORKS and PERFORMANCES

### **9 Gardens, for MANO Controller. 2012**

Commissioned by ZKM and Premiered Nov. 24, 2012.

Performance: *IMATRON Festival, ZKM, Karlsruhe, Germany.*

Earlier Versions:

- *El Sutil Sonido de las Plumas Festival, Caracas, Venezuela, 2012.*
- *Flamim~, Cali, Colombia, 2012.*
- *Cage Centennial, National Academy Museum of Art, New York, 2012.*
- *Ghost in the Instrument Festival, Miller Theater, New York, 2012.*

### **Canto Electroacústico, Tape. 2012**

Collective Composition by 8 Latin American Composers based on bird song from the region.

Premiere: Caracas, Venezuela. November, 2012

### **Silent Construction 2, for MANO Controller. 2010**

Performances

- *Cage Centennial, National Academy Museum of Art, New York, 2012.*
- *EXPO74 2011, New York. CMC-Columbia. 2011*
- *Festival Transitio, Mexico DF. 2011*
- *Ciclo de Música Experimental, CMMAS, Morelia, México. 2011*
- *IMATRON Festival, ZKM, Karlsruhe, Germany. 2010*
- *Earzoom Festival, IRZU Institute for Sonic Arts Research, Ljubliana, Slovenia. 2010*

- *Hypersonica Festival*, Sao Paulo, Brazil. 2010
- *FILE PRIX LUX*, FIESP, Sao Paulo, Brazil. 2010
- *Atempo Festival*, Caracas, Venezuela. 2010.
- *Atempo Festival*, University of Los Andes, Mérida, Venezuela. 2010
- *FLAMUC - Latin American Computer Music Forum*, ICPNA - North American Peruvian Cultural Institute, Lima, Perú. 2010
- *VAE Festival*, Escuelab.org, Lima, Perú. 2010
- *ICMC – International Computer Music Conference*, SUNY, Stony Brook, NY. 2010
- *California Electronic Music Exchange Concerts: CEMEC*, CCRMA - Center for Computer Research in Music and Acoustics, Stanford University, Palo Alto, CA, 2010
- *Changes-SEASONS*, University of Maryland, College Park, Maryland, VA. 2010

### **Three Environments, for Silent Drum Controller. 2009-11**

#### Performances

- *El Sutil Sonido de las Plumas Festival*, Caracas, Venezuela, 2012.
- *Flamim~*, Cali, Colombia, 2012.
- *Cage Centennial*, National Academy Museum of Art, New York, 2012.
- *National Gallery of Art*, Washington DC. 2011 (in honor of the exhibition *Warhol: Headlines*)
- *Festival Transitio*, Mexico DF. 2011
- *Silent Trios, Exapno*, Brooklyn, NY. 2011
- *Computer Music Concert*, New Works, UC San Diego. 2011
- *Hypersonica Festival*, Sao Paulo, Brazil. 2010
- *FILE PRIX LUX*, FIESP, Sao Paulo, Brazil. 2010

### **Silent Construction 1, for Silent Drum Controller. 2009**

#### Performances

- *El Sutil Sonido de las Plumas Festival*, Caracas, Venezuela, 2012.
- *Flamim~*, Cali, Colombia, 2012.
- *Cage Centennial*, National Academy Museum of Art, New York, 2012.
- *Hypersonica Festival*, Sao Paulo, Brazil. 2010
- *FILE PRIX LUX*, FIESP, Sao Paulo, Brazil. 2010
- *Thingamajigs Festival*, Oakland, CA. 2009
- *ICMC – International Computer Music Conference*, McGill University, Montreal, Canada. 2009
- *SIGGraph - Special Interest Group on Graphics and Interactive Techniques*, New Orleans, LA, 2009
- *Pure Data Convention*, CESC, Sao Paulo, Brazil. 2009
- *M+T: Music + Technology Conference*, University of California, San Diego, 2009

### **Flotante, for Percussion, Silent Drum and Mallet Tracking (2008)**

- Concert of the Interactive Computer Music seminar with Miller Puckette and Philippe Manoury. Percussion, Mathew Jenkins. Mandeville Recital Hall. University of California, San Diego, 2008

## INSTALLATION

**VIVO 3.0**, Audiovisual Installation  
TIME CANVAS, Champ D'Action  
MuhKA – Antwerp Museum of Contemporary Art  
Antwerp, Belgium, 2012.

**VIVO 2.0**, Audiovisual Installation  
ARTWARE Festival  
ICPNA - North American Peruvian Cultural Institute  
Lima, Perú. 2009

**VIVO 1.0**, Audiovisual Installation  
ICPNA - North American Peruvian Cultural Institute  
Lima, Perú. 2008

More information: [www.jaimeoliver.pe/vivo](http://www.jaimeoliver.pe/vivo)

## SOFTWARE

A library of objects for video-tracking in the Pd/GEM environment have been released under the GPL license and are included in the current GEM distribution.

## TEACHING EXPERIENCE

**Lecturer**, Columbia University, New York, 2011-13

The Concept of Musical Instrument in Interactive Computer Music  
Core Curriculum Music Humanities

Spring-2013 (upcoming).  
Fall-2011, Spring-2012.

**Teaching Assistant**, University of California, San Diego 2006-2009.

Course	Instructor
History of Electronic Music	Miller Puckette
Computer Music Techniques	Tom Erbe
Musical Acoustics	Shlomo Dubnov
Music Psychoacoustics	Gerald Balzano
Music, Science and Computers	F. Richard Moore
The Beatles	Steve Schick
Art Rock	Chris Tonelli
Popular Voices of Europe	Chris Tonelli
American Experimental Music	Jason Rosenberg

As Teaching Assistant, I prepared and conducted several lectures. I also taught sections and conducted discussions.

## Other Teaching

- **Individual Guest Lectures**

Diseño+, Conference on Digital Design  
Universidad ICESI  
Cali, Colombia, 2012  
Title: "Musical Instruments as Open Scores"

IMPROTECH, New York - Paris  
New York University (NYU)  
New York City, NY, 2012  
Title: "Musical Instruments as Open Scores"

Julliard Music School  
New York City, NY, 2012  
Title: "Silent Percussion Project"

Symposium on Electroacoustic Music Performance  
Center for Computer Music - Brooklyn College Conservatory of Music  
City University of New York (CUNY), 2012.  
Title: "Contingency Patching: Designing architectures for computer improvisation with cpu optimization"

Tecnológico de Monterrey University.  
México DF, México. 2011.  
Title: "Silent Percussion Project"

American University, Washington  
Washington DC, 2011  
Title: "Designing Control Structures in the Silent Drum"

IRCAM – Institute de Recherche et Coordination Acoustique/Musique  
Paris, France, 2010  
Title: "Designing Computer Music Instruments"

*EARZOOM Festival*  
IRZU – Institute for Sonic Arts Research  
Ljubliana, Slovenia. 2010  
Title: "Composition as Lutherie"

*Changes-SEASONS*  
University of Maryland, College Park. Maryland, VA. 2010  
Title: "Music Technology Workshop: Interfaces / Intermedia."

*Ear Club Lectures*  
CNMAT, University of California, Berkeley. Berkeley, CA. 2009  
Title: "Embodied Live Computer Music Performance: The Silent Percussion Project and the Silent Drum"

- **Off-Campus Lectures and Presentations**

Dorkbot-NYC Meeting.

New York City. 2011.

Title: "The Silent Percussion Project"

*Museum of Contemporary Art of Puerto Rico (tele-conference)*

San Juan, Puerto Rico. 2011.

Title: "The Silent Percussion Project"

*MIZZOU New Music Festival – University of Missouri*

Columbia, Missouri. 2011.

Title: "A Computer Instrumentarium".

*MIZZOU New Music Festival – University of Missouri*

Columbia, Missouri. 2011.

Title: "A Computer Instrumentarium".

*Ciclo de Música Experimental*

*CMMAS – Centro Mexicano para la Música y las Artes Sonoras*

Morelia, México. 2011.

Title: "Nueva Música de Cámara"

*FLAMUC – Latin American Computer Music Forum*

Lima, Perú. 2010.

Title: "The Silent Percussion Project"

*ICMC – International Computer Music Conference*

New York City, NY. 2010

Poster Presentation: "The MANO Controller: A Video Based Hand Tracking System"

*Changes-SEASONS*

Library of Congress Whittall Pavilion. Washington DC, 2010.

Title: "Forum: Artists/Technology"

*Changes-SEASONS*

University of California, Washington Center. Washington DC, 2010.

Washington DC, 2010

Title: "Workshop Demonstration: The Music/The Technology"

*SIGGraph - Special Interest Group on Graphics and Interactive Techniques*

New Orleans, LA. 2009

Title: "The Silent Drum"

*INTERACTIVOS? LIMA'09: Magic and Technology*

Organized by *Media Lab Prado - Madrid*

Escuelab, Lima, Perú. 2009

Title: "Magic Elements in Interactive music with computers"

*ICMC – International Computer Music Conference*

Belfast, UK. 2008

Poster Presentation: "The Silent Drum Controller: A New Percussive Gestural Interface"

- **Workshops**

- 2010 Introduction to the Pure Data Programming Environment.  
Orson Welles Institute  
Lima, Perú.
- 2008 Towards Human-Machine Interaction in the Pure Data Programming Environment.  
Fundación Telefónica.  
Lima, Perú.

- **Teaching Interests**

My work develops at the intersection between musical instrument design, composition and musicological research. I am therefore interested in teaching how to develop creating work using technology. This translates into developing the skills needed to tackle a particular technological problem, whether this is designing the electronics for a composition, the design of a performance device/instrument, or of a piece of software to augment an instrument. Furthermore, I try to understand what the student is searching for and show them how other people have solved a similar problem to give them models or points of departure as well as a larger perspective on the use of technology in music.

Course Keywords: Musical instrument design, aesthetics of electronic music, history of electronic music, electronic and computer music techniques and programming, the pure data programming language, interactive system design, history of electronic music, computer music skills for composers, electronic and computer-based musical instruments, and notation, documentation, performance and preservation of electronic and computer music, music cognition, among others.

## **PUBLICATIONS**

2012 Oliver, J. "Código Abierto | Obra Abierta: El Efecto de las Prácticas de Intercambio de Código en la Composición de Música". (The Effects of Code Exchange on Music Composition.) Fundación Telefónica, Caracas, Venezuela. 2012.

2012 Oliver, J. "Theremin in the Press: Construing Electrical Music", Proceedings of the Electroacoustic Music Studies (EMS) Conference, Sweden, 2012.

2010 Oliver, J. "The MANO Controller: A Video Based Hand Tracking System" Proceedings of the International Computer Music Conference, New York, USA, 2010

2010 Reynolds R. and Oliver, J. "SEASONS: Technical Score" Edition Peters - C. F. Peters Corporation No. 68300i, New York, USA, 2010

2008 Oliver, J. and Jenkins, M. "The Silent Drum Controller: A New Percussive Gestural Interface" Proceedings of the International Computer Music Conference, Belfast, UK, 2008

# RESEARCH

- **Personal Research (2006-11)**

## **Musicological**

My dissertation focused on understanding how, in their historical evolution, the diverse practices of electronic and computer music have construed the idea of *musical instrument*. Composers and theorists from the 1950's electronic music studios idealized electronic music as a performer-less and instrument-less practice where the composer, finally freed from the limitations of the physical world, could “speak” directly to the audience. This idealization of *fixed-medium* electronic music, contrasted with the development of computer music as a discipline, where continuous efforts were made to achieve live control of electronic music, reaching a breaking point in three archetypical works from the 1980s: Manoury's *Jupiter*, Waisvitz' *The Hands*, and Lewis' *Voyager*. These interactive music systems offer a foundation for live computer music practices, proposing extensions to the traditional concept of instruments, to instruments that can listen, understand, respond, contain composed structures and exhibit agency or independent behavior.

Live computer music practices confront us again with the human body. Embodied theories of cognition propose models where action and perception are intimately linked and provide researchers with more appropriate frameworks to understand the dynamics of performance. These practices bring forth the duality of working with digital media, while simultaneously attempting to erase the computer as a medium in order to leave us with the transparent and immediate experience of music.

My dissertation argues that designing computer music instruments requires us to understand: the language and aesthetics of both fixed media and live electronic and computer music; the implications of live computer music performance as a cultural and media practice; and the processes of music performance and perception through embodied approaches to cognition.

I am working on revising my dissertation towards the publication of a book. As a reference, the paper entitled “Theremin in the Press: Construing Electrical Music” will be one of the initial chapters of this book.

## **Interfaces and Video-Tracking Software**

As part of my research in Computer-based Musical Instrument Design, I have developed two prize-winning interfaces:

2007-2009     **Silent Drum Controller** - The Silent Drum is an open or transparent drum with an elastic surface, which adapts to the shape of the hand that presses it. This surface is analyzed by a video camera and the data resulting from that analysis is used to control sound events. Several versions and adaptations of this interface exist around the world.

2009-2010     **MANO Controller** - The MANO Controller consists of a black rectangular surface, which is sensed with a video camera. The computer algorithm analyzes the image looking for hands and extracting from them the most relevant parameters, which are then used to control sound.

2010-...       **Color Clusters** - Color-Clusters is an analysis object that groups pixels into shapes based on color similarity and immediate proximity. The features of these shapes and of



the relationships between them are used to control sound. The controller in this case *disappears* and becomes only a camera.

The video tracking software has been published under the GNU Public License, as part of the extra library for the Graphics Environment for Multimedia (GEM), distributed through the Institute for Electronic Music (IEM) in Graz, Austria. GEM is a library for the Pure Data (Pd) Programming Language.

- **Collaborative Research:**

**Roger Reynolds:**

I have worked in collaboration with composer Roger Reynolds since 2008 in the pieces *Marked Music* (w/ bassist Mark Dresser - 2010-11), *Dream Mirror* (2009-10) and *Seasons* (2008-10). In this capacity I have developed computer algorithms for real-time sound processing, designed interfaces for live computer performance and written a detailed *technical score* documenting the algorithms and performance instructions. In these pieces, the computer is used as a musical instrument performing on-stage.

I have also re-constructed the electronic parts of the pieces: *Compass* (1972-3), *Less than Two* (1978) and *Portraits of Vanzetti* (1968).

**James Dillon, Steven Schick:**

*La Coupure* by James Dillon (2010)

Originally realized at IRCAM in the late 1990's. As it is the case with many complex pieces with technology, they are badly preserved and documented. I have created, in collaboration with William Brent, a patch with new interactive behaviors to achieve a new version of this piece presented in the University of California, San Diego, in Glasgow, Scotland and in Miller Theatre in New York.

## **COLLABORATIONS**

### **Sound Design, Programming and Performance**

*Marked Music* by Roger Reynolds, 2010-11  
*for Bass and Real-time computer sound processing*  
Mark Dresser, Bass.  
Jaime Oliver, Computer.

Performances

- The Stone, New York City, 2011.

*Silent Trios*. New compositions by Alec Hall, Bryan Jacobs, Aaron Einbond, and Paul Cliff. 2010  
*for Saxophone, Guitar and Silent Drum*  
Kobe Van Cauwenbergh, Guitars  
Elliot Gattegno, Saxophones  
Jaime Oliver, Silent Drum

Performances

- N.Eastern US-Canada Tour. March, 2012 (upcoming)
- Exapno, Brooklyn, 2010

*La Coupure*, by James Dillon (part of *Nine Rivers*), 2009-10  
*for percussion, multichannel video and live electronics*

Steve Schick, Percussion  
Ross Karre, Visual Design  
Jaime Oliver, William Brent, Electronics and Sound Design.

#### Performances

- Holland Festival, Holland. (Upcoming, 2013)
- Miller Theater, New York. 2011
- University of California, San Diego. 2010
- BBC Scotland - Glasgow, Scotland. 2010

*Dream Mirror* by Roger Reynolds, 2009-10  
*for Guitar and Real-time computer sound processing*  
Pablo Gomez, Guitar.  
Jaime Oliver, Computer.

#### Performances

- Philipps Collection, Washington DC, March 2011
- CMMAS, Morelia, Mexico, March 2011
- Atempo Festival, Caracas, Venezuela. 2010
- Atempo Festival, University of Los Andes, Mérida, Venezuela. 2010

*Seasons Cycle* by Roger Reynolds (2008-09)  
*for Flute, Cello, Violin, Bass Clarinet, Percussion and Real-time computer sound processing*  
*National Gallery of Art New Music Ensemble*

#### Performances

- Full SEASONS Cycle, with Alarm Will Sound, NYC, (upcoming 2014).
- Changes-SEASONS, National Gallery of Art New Music Ensemble, National Gallery of Art, East Wing Atrium, Washington DC. 2010
- *Cycle 1 d: A Mind of Winter* by Roger Reynolds  
Toronto New Music Concerts, Isabel Bader Theatre, Toronto, Canada. 2010  
MIZZOU New Music Festival, University of Missouri, Columbia, Missouri. 2011.
- *Cycle 1 a: Of Life and Spring* by Roger Reynolds  
Conrad Prebys Music Center Opening Gala, La Jolla, CA. 2009

## PROFESSIONAL AFFILIATIONS, MEMBERSHIPS and SERVICE

Andean Network for Video-Lectures in Computer Music, Director, (2012-...)  
Latin American Festival for Musical Interfaces, FLAMIM, Scientific Committee, Colombia, 2012.  
International Computer Music Conference, Paper Program Committee, Slovenia, 2012.  
National Gallery of Art New Music Ensemble, electronics, from 2010.  
Latin American Computer Music Forum, FLAMUC, chair, Lima, Perú, 2010.  
VAE Festival (Perú), Curator, 2003-10.  
Realidad Visual (Electronics Art Organization), member, 2001-2010.

## LANGUAGES

Spanish, native speaker.  
English, fluent.

## REFERENCES

Miller Puckette      [msp@ucsd.edu](mailto:msp@ucsd.edu)  
David Wessel        [wessel@cnmat.berkeley.edu](mailto:wessel@cnmat.berkeley.edu)  
Roger Reynolds     [reynolds@rogerreynolds.com](mailto:reynolds@rogerreynolds.com)

Principal Computer Music Professors  
Miller Puckette, David Wessel (UC Berkeley), Gerald Balzano, F. Richard Moore

Additional Professors Include:  
composers Roger Reynolds, Philippe Manoury

Other References:  
Brad Garton, Jean-Baptiste Barrière, Arshia Cont, James Dillon, Steve Schick, Mark Dresser