

Bruno Zamborlin

Research Interests

- Real-time interactive gesture analysis for performing arts
- Morphology of sound and gesture as new paradigm for music performance
- Machine learning and pattern recognition
- Contemporary music and performing arts

Professional Experience

IRCAM – RealTime Music Interaction team, Paris
Research developer, 2008 – *present*

Centro Tempo Reale, Research Music Center, Florence
Software developer, 2005 – 2008

Backing Track Pro, computer-music enterprise, Milan
Software engineer and developer, 2007 – 2008

Angelica, cultural center, Bologna
Software developer and production assistance, 2006 – 2007

National and European projects

Same Sound And Music For Everyone Everyday Everywhere Everyway

Interlude Novel paradigms for expressive gestural exploration and interaction with digital music content

Developments

Gesture Follower, 2008–2010
Development of a C++ library for real-time gesture analysis and recognition.
MaxMSP integration and applications development.

BT Suite, 2007–2008
Developing proprietary audio file format and encryption system.
Engineering and developing multitrack audio sequencer and playlist-based audio player for arranging, editing and playing encrypted audiofiles.
Prototyping and designing graphical user interface.

SPAWC, 2006–2007
Engineering and developing application for live performances based on analysis of a theremin-generated audio signal.
Technical and artistic assistance in several live performances.

MEEG (MaxMSP Electronic Event Generator), 2005

Prototyping and developing of a time-stretching algorithm and its integration in the MaxMSP environment.

Ambnt, 2006–2008

Designing and developing several applications for musical pedagogy.

Publications

Frédéric Bevilacqua, Bruno Zamborlin, Anthony Sypniewski, Norbert Schnell, Fabrice Guèdy
"Continuous realtime gesture following and recognition"

The 8th International Gesture Workshop. 2009

Center for Interdisciplinary Research at Bielefeld University, Germany, February 2009

[read it]

S. Ferretti, M. Rocchetti, B. Zamborlin,

"On SPAWC: Discussion on a Musical Signal Parser and Well-Formed Composer",

Proc. 5th IEEE International Workshop on Networking Issues in Multimedia Entertainment (NIME'08) – 6th IEEE Communications and Networking Conference (CCNC 2009),

Las Vegas (USA), IEEE Communications Society, January 2009.

[read it]

R&D Projects

Grainstick, interactive installation

Cité des sciences et de l'industrie, June–August 2010

Agora Festival, IRCAM–Centre Pompidou, Paris, August 2009



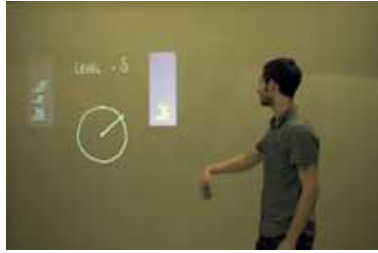
Glossopoeia, Performance for 3 dancers, 4 musicians, video and live electronics

Centre Pompidou, Paris, 2009

Co-commissioned by the Ircam–Centre Pompidou, Kairos Music and Operadhoy–Madrid



Fishing Game, interactive installation
Agora Festival, IRCAM, Paris, 2009



Working progress

Ivan Fedele (composer, Italy)

Work for percussions and 8 strings. IRCAM Computer–Music Design. Premiere: 2010

Following and recognition of a percussionist's gestures with particular attention to the percussionist's "anticipation" gestures (e.g. hand going up, preparation, etc.); exploitation of the memory of gestures; exploitation of the variability of instrumental performance for the generation of sequences.

Florence Baschet

IRCAM research and production, 2010

Mari Kimura (Violinist, United States)

IRCAM Musical Research Resident 2010

Study of bowing gestures to free new methods of expressivity while increasing the vocabulary of interactive language.

Artistic Projects

Modern Art Museum of Bologna (MAMbo), Bologna

Undirected Frequencies, Interactive audiovisual installation, 2008



iDat, Singapore

E.O.D., Interactive Installation , 2007



Venice Airport Festival, Venice

Microlife, Interactive audiovisual installation, 2007



Education

Ircam – Centre Pompidou, Real-Time Musical Interactions team, Paris, France
Internship in Gesture Follower, research and development, 2008

University of Bologna, Department of Computer Science, Bologna, Italy
M.Sc. in Computer Science, 2006 – 2009 , *Magna Cum Laude*
Dissertation: "*Gesture Follower – A library for real time gesture recognition and alignment*"

University of Padua, Department of Mathematics, Padua, Italy
B.Sc. in Computer Science, 2002 – 2005
Dissertation: "*Software tools for musical education*"

Leiden University, Leiden Institute of Advanced Computer Science, Leiden, Netherlands
Visiting student, 2004 – 2005

Teaching Experience

Poggio Imperiale Lyceum, Florence
Computer Music tutor, 2005

Leonbattista Alberti Lyceum, Florence
Computer Music tutor, 2005

Kassel school, Florence
Computer Music tutor, 2005

San Giusto school, Milan
Computer Music tutor, 2005

Languages

English
French
Italian (*native*)

Referees

Frédéric Bevilacqua
Head of Real-time interaction team, IRCAM
http://imtr.ircam.fr/imtr/Frederic_Bevilacqua
frederic.bevilacqua@ircam.fr

Norbert Schnell

Head of development of Real-time interaction team, IRCAM
http://imtr.ircam.fr/imtr/Norbert_Schnell
norbert.schnell@ircam.fr

Marco Rocchetti

Professor in Computer Science at Bologna University
<http://www.cs.unibo.it/~roccetti/>
roccetti@cs.unibo.it

Contacts

Phone: +33-1-4478-4821
Mail: bruno.zamborlin [at] ircam.fr
Web: www.brunozamborlin.com
Address: 1, place Igor-Stravinsky 75004 Paris France