

Academic CV with publications

Frédéric Bevilacqua

Citizenship: Swiss and Italian

Professional address

Ircam - Centre Pompidou

STMS lab Ircam – CNRS – Sorbonne Université

1, Place Igor Stravinsky

75004 Paris – France

frederic.bevilacqua@ircam.fr

<http://frederic-bevilacqua.net>

<https://www.stms-lab.fr/team/interaction-son-musique-mouvement/>

Private address

12-14 Rue Berger

75001 Paris - France

fredericpbevilacqua@gmail.com

Tel +33 6 60 79 16 78

Research Themes.....	2
Education.....	2
Professional Experience.....	2
Honors/Awards/Fellowships.....	3
Grants (Selected).....	3
Keynotes And Invited Talks (Selected)	4
Research Supervision.....	6
Service.....	8
Teaching	9
Media Coverage (Selected)	10
Exhibitions And Sound Installations (Selected)	11
Artistic Collaborations (Selected).....	12
Publications	14
Patents	25

RESEARCH THEMES

- Since 2000 Human Computer Interaction, Interactive Machine Learning, Motor Learning
 Music and Movement
 Sound and Music Computing, Movement and Computing
 Gesture-based Musical Interactive Systems
- 1994-2003 Biomedical Optics and Photonics

EDUCATION

- 2014 **Habilitation** (Diplôme d'Habilitation à Diriger des Recherches, spécialité sciences pour l'ingénieur), Université Pierre et Marie Curie (Paris VI)
- 1994-1998 **Ph.D.**, (*Docteur ès Sciences*), Swiss Federal Institute of Technology Lausanne (EPFL),
- 1992-1993 **Two-Year Certificate**, Berklee College of Music, Boston, USA
- 1986-1991 **Master in Physics** (*Dipl. Ing. Physicien*), Department of Physics, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland

PROFESSIONAL EXPERIENCE

Current position

- 2008 - **Head Researcher**, Sound Music Movement Interaction team
STMS lab, IRCAM-CRNS-Sorbonne Université, Paris, France
Team leadership, research and development coordination:
team of 10-15 people with 4 permanent researchers and developers, post-docs, non-permanent and invited researchers, master and PhD students.

Past Professional Appointments/Employment

- 2003-2007 **Researcher**, Real-Time Musical Interactions team, IRCAM Paris, France
- 2003 **Ass. Researcher** (equivalent to Assistant Research Professor), Beckman Laser Institute and Medical Clinic, University of California, Irvine, USA
- 1999-2003 **Post-Doctoral Fellow**, Beckman Laser Institute and Medical Clinic, University of California, Irvine, USA
- 1998-1999 **Engineer/Researcher**, Institute of Applied Optics, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland
- 1994-1998 **PhD Student**, Micro-Engineering Department, Institute of Applied Optics, Swiss Federal Institute of Technology Lausanne (EPFL)
- 1991 **Engineer/Researcher**, Biomedical Engineering Laboratory (LGM), Swiss Federal Institute of Technology Lausanne (EPFL)
- 1991-1992 **Physics Teacher**, Bugnon Highschool, Lausanne, Switzerland

Other Experiences

- Sept. 2010 **Visiting Professor** MARCS Auditory Laboratories, College of Arts, University of Western Sydney, Australia
- 2005 - **Founding member** of *Modulim*, Inc, startup of University of California, Irvine, USA

HONORS/AWARDS/FELLOWSHIPS

2021	Honorary Mention for the paper Sonic Hoop at CHI'21 (Liu et al.)
2018	Étoile de l'Observateur du Design for Coloop with NoDesign.net/IRCAM
2013	Prix ANR du Numérique : Award from the French National Research Agency, category "Societal Impact" as the coordinator of the Interlude project
2011	1st Prize of the Margaret Guthman Musical Instrument Competition at Georgia Tech's Center for Music Technology, Interlude Consortium, USA
2001	Whitaker Postdoctoral Fellowship for United Engineering Foundation Conference "Advances in Optics for Biotechnology, Medicine and Surgery"
1999	Post-doctoral Fellowship , Swiss National Science Foundation
1999	1st Prize of the French Society of Medical Lasers

GRANTS (Selected)

Projects as Leader/Coordinator

2018-2022	ELEMENT , Enabling Learnability in Embodied Movement Interaction http://element-project.ircam.fr/ French National Research Agency (ANR). (budget 1'270 k€, grant 583 k€) Partners: Ircam, LRI-CNRS, LRI Université Paris Saclay 2020-2022 CoMo-Vox, Applications for learning basic conducting gestures. supported by the Ministry of Education (Edu-up) (budget 119 k€, grant 53 k€) Partner: Radio France
2011-2015	Legos , Evaluation of the sensorimotor learning in gesture-sound interactive systems, http://legos.ircam.fr/ French National Research Agency (ANR). (budget 1'046 k€, grant 429 k€) Partners: Ircam, Université Paris-Descartes/CNRS,
2010-2011	Urban Musical Game , Festival Futur en Seine 2011 Cap Digital, Région Ile de France. (budget 79k€, grant 66 k€) Partners: Ircam, Nodesign,
2009-2011	Interlude , New digital paradigms for the expressive gestural exploration and interaction with musical content, http://interlude.ircam.fr/ French National Research Agency (ANR). (budget 1'085 k€, grant 695k€) Partners (academic, industry, design, pedagogy): Ircam, GRAME, Da Fact, Voxler, Nodesign, Atelier des Feuillantines, Start-up created through the project: Phonotonic

International and EU - ICT projects

2015-2017	RAPID-MIX , Realtime Adaptive Prototyping for Industrial Design of Multimodal Interactive eXpressive technology. Coordinator of the IRCAM tasks. Project Coord.: University Pompeu Fabra, Spain. H2020 - ICT-18-2014. (budget 2'682 k€, grant 2'330 k€)
2015-2016	MusicBricks , Musical Building Blocks for Digital Makers and Content Creators. Coordinator of the IRCAM tasks. Project Coord.: Stromatolite Innovation Lab. H2020 - ICT-22-2014. (budget 1'031 k€, grant 897 k€)
2014-2016	Skat-VG , Sketching Audio Technologies using Vocalizations and Gestures,

Coord.: University of Padova
FP7-ICT (FET), (budget 3'166 k€, grant 2'435 k€)

- 2008-2010 **SAME**, Sound And Music For Everyone Everyday Everywhere Everyway,
Coord.: University of Genova, Italy
FP7-ICT, Networked media
- 2005-2008 **I-Maestro**, Interactive Multimedia Environment for Technology Enhanced
Music Education and Creative Collaborative Composition and Performance,
Coord.: University of Leeds, UK
FP6-IST: Technology-enhanced Learning, Coord.: University of Leeds, UK
- 2009-2010 **Inside Movement Knowledge**, Documentation, transmission and
preservation of contemporary dance, Coord.: Amsterdam School of the Arts,
Netherlands.
Coordination of the IRCAM tasks.

National projects (France)

- 2014-2017 **CoSiMa**, Collaborative Situated Media
Coordination: N. Schnell, ISMM team, IRCAM
French National Research Agency (ANR). (budget 2'275 k€, grant 1'171 k€)
- 2012-2020 **Labex SMART**, Smart Human/Machine Interactions in the Digital Society
- Project ISMES -Embedded sensorimotor interfaces for rehabilitation and substitution
Workpackage Leader
 - Project SenSe - Socio-Emotional Signals
Workpackage Leader
- 2012-2015 **WAVE**, Web audio: edition/visualization, French National Research Agency
- 2006-2009 **EarToy**, Avatars sonores et interactions musicales temps réel,
ANR-RIAM

KEYNOTES and INVITED TALKS (selected)

- 2022 **Invited talk**, Forum IRCAM Hors Les Murs, NYU, October 1st 2022.
- 2021 **Roundtable** at the International Conference Intersection Art, Society and
Technology in Musical Innovation, IKG Institute, Universidad de Valladolid
Spain, September 3 2021
- Roundtable** *Sound of Care*, Festival #LearningPlanet, January 24, 2021
- 2020 **Roundtable**, Dance: Between Living and Artificial, Forum Vertigo Ircam
Centre-Pompidou, February 27 2020
- 2019 **Invited talk**, Arizona State University, ASU DC Speaker Series
- Invited talk**, JTSE - Journées Techniques du Spectacle et de l'Évènement,
2019
- Invited talk**, International Symposium on « Gesture, Capture and Notation»,
HEM - HES-SO Genève, Sept. 9, 2019
- Invited talk and workshop**, La Biennale di Venezia, CIMM 2019 Masterclass
- 2018 **Invited talk**, Festival Tagung 2018, Institut für Neue Musik und
Musikerziehung Darmstadt, April 6 2018

- Invited talk**, Symposium "Space-time geometries and movement in the brain and in the arts", Paris Institute for Advanced Study, organized by Tamar Flash and Alain Berthoz June 19, 2018
- 2017 **Invited talk**, "Journées du Geste 2.0", May 3 2017, Stereolux, Nantes, France
Invited talk, "Musical Interfaces and Robotics" November 27, 2017, Tokyo University of the Arts, Japan
- 2016 **Invited talk**, "Gesture capture and instrument design" GREAM, Strasbourg, March 24 2016
Invited talk, CNMAT, UC Berkeley, May 6 2016
Invited talk, "Interprétation et technologie: performance et virtuosité" , Université Rennes 2, October 6 2016
Invited talk, Musique et systèmes complexes - Strasbourg March 24 2016
Invited talk, Séminaire Gestothèque, ENSCI , April 6 2016
Invited talk, Séminaire PACAP 3 - de la captation à la visualisation - Les rapports Geste/Captation, Cité du Design St-Etienne, March 16 2016
- 2015 **Invited talk**, Université de Technologie De Compiègne (UTC), May 19, 2015
Invited talk, Colloque Le violon en France du XIXe siècle à nos jours, Paris, March 26 2015
- 2014 **Keynote**, LT-Innovate / ROCKIT, June 24 2014, Brussels, Belgium
- 2013 **Invited talk**, Electronic Music Week, Shanghai Music Conservatory, China
Keynote, Audio Mostly Conference 2013, September 18–20 – Piteå, Sweden
Keynote, IHM'13, Conférence francophone sur l'Interaction Homme-Machine, November 12-15 2013 – Bordeaux, France
Keynote, Symposium Enquiry Now/Then: Documenting, Publishing and Disseminating Objects & Experiences, University of Sussex, June 24 2013, UK
Keynote, TEI'13 - Seventh International Conference on Tangible, Embedded and Embodied Interaction, ACM, February 10-13, 2013. Barcelona, Spain
Invited talk, UCLIC, University College London, January 30 2013, UK
Invited talk, Centre de documentation de la musique contemporaine, January 26 2013, Paris, France
- 2012 **Invited talk**, Whitehead Lecture, Goldsmiths University of London, December 5 2012, UK
Invited talk, Séminaire Geste, Perception et Interactions, Chaire Robotique et Réalité Virtuelle, PSA Peugeot-Citroën Mines ParisTech, June 5 2012, Paris
Invited talk, Semaine du son, Ircam. Paris, France
- 2011 **Invited talk**, Electronic Music Week, Shanghai Music Conservatory, China
Invited talk, Beckman Laser Institute, University of California Irvine, USA
Invited talk, MiPP Motion Capture Workshop - University of Sussex, UK
Invited talk, Goldsmiths University of London, UK
- 2010 **Keynote**, International conference SEAM 2010: Agency & Action, Sydney, Australia
Invited talk, Seminar Series "Le geste comme langage", IRI-Centre Pompidou, Paris, France
- 2009 **Invited Lecture/Demonstration**, EMPAC, Experimental Media and Performing Arts Center, Rensselaer Polytechnic Institute, Troy, USA

- 2008 **Invited talk**, Yamaguchi Center for Arts and Media (YCAM), Japan
- 2007 **Invited talk** with Mari Kimura, Harvestworks Digital Media Arts Center, New York, USA
- 2007 **Invited talk**, Festival Paganiniana 2007 – Genova, Italy
- 2006 **Invited talk**, Monaco Dance Forum, Monaco
- Invited talk**, CineDebate, International Dance Festival Amsterdam, Netherlands
- 2004 **Invited talk**, Le Corps & La Musique, Rencontres Musicales Pluridisciplinaires, Grame, Lyon, France
- 1997 **Invited talk**, Institut de Recherche en Ophtalmologie (IRO), Sion, Switzerland

RESEARCH SUPERVISION

PhD supervision

Ongoing

Victor Paredes, Systèmes interactifs adaptatifs avec retour sonore pour stimuler l'apprentissage et l'exploration du mouvement, DITE Sorbonne Université.

Alénior Golvet, Distributed Interactive Music System: Web-based approach for Collective Multimodal Interaction, EDITE Sorbonne Université

Graduated

- 2019-22 Iseline Peyre, Sonification du mouvement pour la rééducation après une lésion cérébrale acquise : conception et évaluations de dispositifs, Co-supervised with P. Pradat-Diehl Hôpital Pitié-Salpêtrière
- 2018-22 Marion Voillot, The Body at the Heart of Learning leveraging Digital Technology: Exploring a New Paradigm for Early Childhood Education, co-supervised with J. Chevrier CRI Université Paris Descartes
- 2016-19 Hugo Scurto, Designing With Machine Learning for Interactive Music Dispositifs, Sorbonne Université
- 2014-18 Pavlos Antoniadis, Embodied Navigation of Complex Notation: Rethinking Musical Interaction from a Performer Perspective. Co-supervised with Prof. P. Michel, Université de Strasbourg.
Thesis Award of Université de Strasbourg 2019
- 2012-17 Marco Antonio Suarez Cifuentes, program SACRe (Sciences, Arts, Création, Recherche), Paris Sciences & Lettres.
- 2012-2015 Eric Boyer, Sensorimotor learning in gesture-sound interactive systems. Co-supervised with P. Susini - Ircam and S. Hanneton Université Paris-Descartes.
- 2011-2015 Jules Françoise, Gesture-Sound mapping-by-demonstration in interactive music systems. Université Pierre et Marie Curie. Co-supervised with Prof. T. Artières, LIP6 UPMC.
Best Doctoral Symposium Award, ACM Multimedia 2013
- 2011- Bruno Zamborlin, Encouraging Appropriation in the Design of Embodied Digital Music Interfaces, Collaboration between Ircam (F. Bevilacqua, G. Assayag) and Department of Computing, Goldsmiths University of London
First prize at the Laval Virtual Awards 2012 (Interfaces et Materials)
Prize "young researcher" 2012, Day of Science and Music 2012, IRISA

- 2009-2012 Sarah Fdili Alaoui, Analyse du geste dansé et retours visuels par modèles physiques: apport des qualités de mouvement à l'interaction. Co-supervised with Prof. C Jacquemin, LIMSI - Université Paris-Sud 11
Honorary Mention, ACM Designing Interactive Systems (DIS 2012),
- 2008-2011 Baptiste Caramiaux, Études sur la relation geste-son en performance musicale, Université Pierre et Marie Curie. Co-supervised with Prof. C. Agon (Ircam)
Prize "young researcher" 2014, Day of Science and Music 2012, IRISA
- 2007-2012 Tommaso Bianco. Gestural control in trumpet performance: experiments and modeling, Université Pierre et Marie Curie. Co-supervised with R. Caussé (Ircam)
- 2006-2010 Julien Bloit, Musical interaction and sonic gestures: temporal modeling of audio descriptors, Université Pierre et Marie Curie. Co-supervised with Prof. X. Rodet (Ircam)
- 2004-2008 Nicolas Rasamimanana, Violin player instrumental gesture: analysis and modeling, Université Pierre et Marie Curie Co-supervised with R. Caussé (Ircam)

PhD and HDR Committee (other than the list above)

- 2022 Laure Prétet, Télécom Paris (LTCI) (reviewer)
- 2021 Félix Bigand, Université Paris-Saclay (reviewer)
- 2020 Thibault Chabin, (reviewer), Université de Bourgogne-Franche Comté
Benjamin Matuszewski, Université Paris 8.
Suguru Goto, Université Paris 8 (reviewer)
- 2019 Thomas Hueber, HDR, Université de Grenoble Alpes
- 2018 Peter Sinclair, HDR, Université Aix-Marseille, France
Dominique Boutet, HDR, Université Rouan-Normandie, France
Hadrien Jean, Université PSL, France
Qi Wang, Ecole Centrale Marseille, France
- 2017 Florian Jeanne, UTC,
Hedgar Hemery MINES ParisTech,
- 2016 Justyna Maculewicz, Aalborg University, Denmark
Rémy Frenoy, Université de Technologie de Compiègne.
- 2015 Aymeric Mazurelle, TELECOM Paris Tech.
Nesrine Fourati, TELECOM Paris Tech.
Alaeddine Mihoub, IPSA Lab Grenoble.
- 2014 Yu Ding, TELECOM Paris Tech
- 2013 Jean-Françoise Jego, Mines ParisTech
- 2012 Pieter-Jan Maes, Ghent University, IPEM-Dept. of Musicology

Master supervision

- 2020 Victor Parades, Master ATIAM, Paris, France
Lydia Rodriguez-de la Nava, , Master ATIAM, Paris, France
- 2018 Aude Pétiard, CNSMDP, Paris France
Bavo Van Kerrebroeck, Master ATIAM, Paris, France
- 2016 Pierre Mahé, Master ATIAM, Paris, France

2015	Stacy Hsueh, Master ATIAM, Paris, France
	Hugo Scurto, Master ATIAM, Paris, France
2014	Pablo Arias, Master ATIAM, Paris, France
2012	Quentin Pyannet, Master ATIAM, Paris, France
2011	Jules Françoise, Master ATIAM, Paris, France
2008	Bruno Zamborlin, Master University of Bologna, Italy
2007	Anthony Sypniewski, Master ATIAM, Paris, France
2006	Florian Kaiser, Master ATIAM, Paris, France
2005	Frédéric Leau, ENSEA, Paris, France
2004	Remy Müller, DEA <i>Images et Systèmes</i> , Paris, France
2004	Nicolas Rasamimanana, Master ATIAM, Paris, France
1999-2003	Undergraduate and graduate students, University of California Irvine, USA
1994-1998	Undergraduate research program, EPFL, Lausanne, Switzerland

SERVICE

Conference and Workshop Organization

2022	Co-organizer , ELEMENT Days, symposium and workshop on Learning and Interactive Systems, IRCAM, October 13-14 and 21 2022
2021	Co-organizer , Feminism Music Technology, Festival Manifeste, CWB 2021
2019	Co-organizer , Workshop ELEMENT-Movement Design and Learning, November 22 2019, Ircam
2018	Co-chair of the Interactive machine learning exhibition at ISMIR 2018, Paris
2016	Co-organizer , Workshop on Human-Centred Machine Learning, CHI conference 2016, San Jose, USA
2015	Co-Chair , International Workshop on Movement and Computing (MOCO'15), (part of the ISEA conference), Simon Fraser University, August 13-14, Vancouver, Canada
	International Workshop on Movement Sonification and Learning, Ircam, March 2-3 2015, Paris
2014	Co-Chair , International Workshop on Movement and Computing (MOCO'14), Ircam, Paris, France
	Co-organizer of the Machine Learning, Expressive Movement, Interaction Design, Creative Applications at the AISB Convention, April 1-2, London
2012	Co-organizer International Workshop on Movement Qualities and Physical Models, Ircam, Paris, France
2010	Co-organizer International Workshop International on GDIF-SpatDIF format, Ircam, Paris, France
2007	Workshop organization , IHM 07-19ème Conférence Francophone sur l'Interaction Homme-Machine, Ircam, Paris, France
2006-2008	Seminar series organization , Action Spécifique Geste et Action, Groupe De Recherche ISIS – Information, Signal, Images et Vision, Paris, France
2006	Co-Chair , International Conference on New Interfaces for Musical Expression, NIME 06, June 2006, Paris, France
2006	Workshop organization , "Choreographic Computations: Motion Capture and Analysis for Dance", NIME, 2006, Paris, France

Conference/Workshop Committees

- Since 2014 **Steering committee** of the international symposium MOCO – Movement and Computing
- 2020 **Program Committee**, demos, workshops and artistic works, MOCO 2020
- 2015 **Program Committee**, CMMR 2015, 11th International Symposium on Computer Music Multidisciplinary Research
- 2014 **Program Committee**, WACAI - Workshop Affect, Compagnon Artificiel, Interaction, 2014
- 2012 **Paper Program Committee**, International Computer Music Conference, 2012
- 2011-12 **Technical Program Committee**, SMC - Sound and Music Computing conferences, 2011 and 2012
- 2006-2011 **Steering committee** of the international NIME conferences (New Interfaces for Musical Expression), 2006-2011, Paper Program Committee: NIME'07, NIME'14, NIME'15
- 2011 **Technical Program Committee**, "INTETAIN 2011, 4th International ICST Conference on Intelligent Technologies for Interactive Entertainment", 2011
- 2010 **Scientific committee**, 3rd International Conference on Music and Gesture, McGill 2010
- 2009 **Program Committee**, 1st Social Behavior in Music Workshop at IEEE International Conference on Social Computing, 2009
- 2002 **Technical Program Committee**, Biomedical Topical Meetings, Optical Society of America, April 2002

Advisory Boards

- 2013-15 EU project (ICT-FP7) PRAISE-Practice and performance Analysis Inspiring Social Education. Coord. Artificial Intelligence Research Institute, Spain
- 2014-16 Project "Motion Gesture Music", Swiss National Science Foundation. Coord. Zurich University of the Arts

Search Committee

- 2013 Search committee, assistant professor (Maître de conference) in Computer Sciences, Université Pierre et Marie Curie (UPMC), 2013

Reviewer (since 2000)

- Projects ANR (French National Research Agency), Swiss National Science Foundation (SNSF), Research Foundation - Flanders- Belgium (FWO)
- Journals Biological Cybernetics, IEEE Transactions on Multimedia, EURASIP Journal on Advances in Signal Processing, Computer Music Journal, Journal of New Music Research, TSI (Technique et Science Informatiques), Optics Letters, Applied Optics, Journal of the Optical Society of America, Optics Express, Journal of Biomedical Optics, IEEE Transactions on Biomedical Engineering, Physical Review, Applied Journal of Physiology, Frontiers Psychology

TEACHING

Courses

- 2018-2022 Lectures for the AIMove, Post Masters' Degree in Human-Centred Artificial Intelligence, MINES ParisTech - PSL Université, Paris France.
- 2007-2019 Lectures on Computer Music and Musical Interactions, IRCAM, Paris, France
- 2015 Lecture at the SMART School on Computational Social and Behavioral Sciences Paris, August 31th - September 4th 2015

- 2013 Lecture and Workshop, Summer School of the HC2 project, Ircam, July 17-19 2013
- 2010 Lecture at the Spring school in Computer Science on Gesture Recognition (Enseignement dans 3e cycle romand d'informatique, Université de Fribourg), Switzerland
- 2006-2007 Lectures on Gesture Analysis and Recognition, in master ATIAM, UPMC.
- 2007-2012 Lectures on Computer Music and Musical Interactions, Composition Cursus, IRCAM, Paris, France
- 2002 Invited lecture at Rensselaer Polytechnic Institute, Troy, NY, USA
- 2001 Lectures on Engineering Optics, University of California Irvine, USA
- 1991-1998 Teaching assistant for Engineering Optics laboratory course, and various mathematical courses

Invited workshops and tutorials

- 2021 Workshop on Web Technologies for Distributed and Collection Interaction, G. Paine, Arizona State University, September 2021
- 2019 Workshop on Web Audio for Collaborative Situated Media class, G. Paine, Arizona State University
- 2018 Darmstadt Summer Course, Collective Musical Interactions, July 23-27
Workshop on Mobile Musical Systems, Unicamp 26/11, Inhotim 30/11 et 1/12, Brasil
Workshop on interactive systems, ENSCI Les Ateliers, April 23-27 avril
Workshop on Movement Sensing and Mobiles Dantzagunea, Spain, Mai 24
- 2014 Workshop on "Gesture Capture and Interactive Sound Technologies", Ircam
- 2006-2011 Workshops at Forum Ircam on "Gesture Recognition", Paris, France
- 2010 Workshop on Gesture Capture with Richard Siegal, Muffatwerk, Munich, Germany
Workshop "Software Tools for Sound and Gesture", SEAM conference, Sydney, Australia
- 2009 Tutorials on Music Interaction "Ircam Overview" for the spring-school on music composition, Paris, France
Workshop on Gesture Capture, Dance Congress, Kampnagel, Hamburg, Germany
- 2008 Workshop on Gesture Capture, Yamaguchi Center for Arts and Media (YCAM), Japan
- 2005-2006 Workshops on Gesture Capture, Professional training, Ircam, Paris, France

MEDIA COVERAGE (Selected)

Press and Blogs

- 2016 **TRAX Magazine**, Comment les chercheurs de l'ircam transforment les clubbers en musiciens, Théodore Hervieux, July 16 2016
Makery, La recherche musicale européenne joue aux hackathons, Elsa Ferreira, June 20 2016.
- 2015 **Interactions Magazine**, MaD, Mapping by demonstration for continuous sonification. How was it Made? ACM, vol. 22(3), pp. 14-15, 2015.
- 2014 **Le Temps** "La médecine pourrait profiter des technologies développées pour les instruments de musique", "Le futur de la musique passe par les instruments augmentés", (www.letemps.ch), Jonas Pulver, Nov. 15 2014

- 2013 **Le Monde**, "Interlude, la musique au bout des doigts", Arthur de Pas, June 19 2013
- 2011 **Bloomberg.com**, "New Musical Instruments", Venessa Wong, Nov. 2, 2011
Scientific American Blog, "Talk to Me Exhibit Speaks, But Not the Whole Truth", by Jennifer Jacquet, July 24 2011
New York Times, "For a Violinist, Success Means A New Low Point", Matthew Gurewitsch, May 13, 2011 (on the collaboration with Mari Kimura)
Les cahiers de l'ACME, Reportage NIME'11, Fabrizio Rota, Sept/Oct 2011
NewZilla.net, "Et si on jouait au volley pour faire de la musique ?", Arnaud Devillard, March 25 2011
Creative Digital Music, "What Makes a Truly New Instrument? Human Gestures Power Winners of Guthman Competition", Peter Kin, March 21 2011
- 2006 **Libération**, "Fusions numériques sur le Rocher", par Frédérique Roussel, December 14 2006
- Radio**
- 2020 **Radio Campus France**, Musique et sciences participatives, Radio Campus France, Production : Anna Péan
- 2018 **Radio Suisse Romande**, Du toucher au geste, Espace 2, , 4/9/2018
- 2011 **France Inter**, "Ouvert la Nuit", Interview of Frédéric Bevilacqua by Daniel Fiévet, 2011
Radio France International, Interview of J.-L. Frechin, U. Petrevski, F. Bevilacqua, Bucarest, 2011
France Culture, Interview of Frédéric Bevilacqua, "Culture Plus", 2011

EXHIBITIONS and SOUND INSTALLATIONS (selected)

"Maestro Maestra" installation permanente - Philharmonie de Enfants

Frédéric Bevilacqua & Jean-Philippe Lambert pour Ircam Amplify

2021- Philharmonie, Paris

Coloop (Collection du Centre Pompidou, AM 2019-1-113)

Ircam & NoDesign

2021 Mini-Coloop, Biennale de Design de Gwangju , 1 Sept - 31 Oct. 2021

2020 Designer(s) du Design", Sept. 16 - Nov. 15 2020, Le Tripostal, Lille

2018 Soirée Sonore, Centre Pompidou

2017 Festival Future en Seine, Paris

MO Modular Musical Objects

Interlude Consortium

2016 Exhibition Electrosoud, EDF Foundation Paris

2011 Shanghai Electronic Music Week, China

2011 Talk to Me, MoMA, New York, USA

2011 Objet(s) du numérique, design d'un nouveau monde industriel, Lieu du Design, Paris, France

2011 Lift Conference, Geneva, Switzerland

2010 Biennale Internationale du Design Saint-Étienne, France

Urban Musical Game Interactive sound installation

F. Bevilacqua, N. Schnell N. Rasamimanana, J. Bloit, E. Flety, J.-L. Frechin, U. Petrevski, A. Cera

- 2012 Parizone@Dream - Festival de la créativité numérique, Gaité Lyrique, Paris, France.
- 2012 CHI conference, Austin, USA
- 2012 Printemps des Arts de Monte Carlo
- 2012 Festival Fabriques Numériques, Ville des Ulis, France
- 2011 Le CUBE, France
- 2011 Apart SFR, France
- 2011 Lift11, Marseille, France
- 2011 Futur en Seine & Agora Festival, IRCAM, Paris, France

If/Then Installed

R. Siegal, F. Bevilacqua, F. Bérenger, H. Goidell, J.-P. Lambert

- 2012 Danser sa vie, Centre Pompidou, Paris, 2012, France
- 2011 Play Admont, Museum of Contemporary Art, Stift Admont, Austria
- 2011 Imagining Media@ZKM, Karlsruhe, 2010-2011, Germany
- 2009 Notation, Kalkül und Form in den Künste, ZKM, Karlsruhe, 2009, Germany
- 2009 Festival Agora 2009, Ircam, Paris, France

Double Skin/Double Mind Interactive Installation

C. Ziegler, F. Bevilacqua, B. Bermudez, M. Bellardi, S. Fdili Alaoui

- 2010 SEAM 2010, Sydney, Australia
- 2010 Panorama International Festival, Rio de Janeiro, Brazil
- 2008 SpringDance, Utrecht ,2008, Netherlands
- 2008 1st Biennale der Tanzausbildung, Berlin, Germany
- 2007 Amsterdam School of the Arts, Amsterdam, Netherlands
- 2007 Dutch Dance Festival, Maastricht, Netherlands

Active Space

- 2004 Beall Center for Art+Technology, Irvine, CA, USA.

impromptu - Dancing in the Active Space

- 2002 Museum UCR/California Museum of Photography, Riverside, USA

ARTISTIC COLLABORATIONS (selected)

- 2020 *Constella(c)tions*, Michelle Agnes Magalhaes, Benjamin Matuszewski, STARTS Residencies, Le CENTQUATRE-PARIS, Feb. 29, 2020
- 2019 *En bonne Compagnie*, with Michelle Agnes Magalhaes, Improtech 2019 (ikPA'19), Athen
- 2019 *Orange*, Michelle Agnes Magalhaes Autriche, Graz, Ensemble Schallfeld.
- 2018-19 *SQUARE*, Lorenzo Bianchi Hoesch, Interactive Installations
- 2018-19 *IDEA*, Sampo Haapamäki, F Finlande, Viitasaari, Time of Music Festival Finland
- 2018 *The grand Can(ly)on*, Michelle Agnes Magalhaes, Sesc Brazil.

- 2015 *Dels Dos Principis*, Henry Fourès, Festival Musica, Strasbourg
- 2012 *La Muette*, Florence Baschet, Ircam, Paris
- 2010 *GrainStick - 2.0*, Pierre Jodlowski, Interactive Installation, Cité des Sciences Paris
- 2009 *Glossopoeia*, Richard Siegal and Alberto Posadas, Ircam, Paris
- 2007-10 *Various Works with the Augmented Violin*, Mari Kimura, NYC
- 2007-08 *StreicherKreis*, Florence Baschet, Quatuor Danel, IRCAM
- 2006 *This is my house*, Myriam Gourfink, Centre Pompidou
- 2005 *BogenLied*, Florence Baschet, Festival Why Note, Dijon

PUBLICATIONS

<https://scholar.google.fr/citations?user=4k-k6SEAAAAJ&hl>

Peer-Reviewed Journal Papers (58)

1. A. Lorient, W. Liu, F. Bevilacqua, and B. Caramiaux, 'Describing movement learning using metric learning', *Plos one*, vol. 18, no. 2, p. e0272509, 2023.
2. W. Liu, M. A. Magalhaes, W. E. Mackay, M. Beaudouin-Lafon, and F. Bevilacqua. Motor Variability in Complex Gesture Learning: Effects of Movement Sonification and Musical Background ;, *ACM Trans. Appl. Percept.*, vol. 19, no. 1, Jan. 2022,
3. J. Ley-Flores, E. Alshami, A. Singh, F. Bevilacqua, N. Bianchi-Berthouze, O. Deroy, A. Tajadura-Jiménez. Effects of pitch and musical sounds on body-representations when moving with sound', *Scientific reports*, vol. 12, no. 1, pp. 1–20, 2022.
4. F. Bevilacqua, B. Matuszewski, G. Paine, N. Schnell. On Designing, Composing and Performing Networked Collective Interactions. Organised Sound, Cambridge University Press (CUP), 2021, 26 (3), pp.333-339.
5. G. Paine, F. Bevilacqua, B. Matuszewski. Editorial: Collective and networked sound practices. Organised Sound, Cambridge University Press (CUP), 2021, 26 (3), pp.303-304
6. H. Scurto, B. V. Kerrebroeck, B. Caramiaux, F. Bevilacqua. Designing deep reinforcement learning for human parameter exploration. ACM Transactions on Computer-Human Interaction (TOCHI), 28(1), 1-35. 2021
7. B. Caramiaux, J. Françoise, W. Liu, T. Sanchez, and F. Bevilacqua. Machine learning approaches for motor learning: A short review. *Frontiers in Computer Science*, 2:16, 2020.
8. E. O. Boyer, F. Bevilacqua, E. Guigon, S. Hanneton, and A. Roby-Brami. Modulation of ellipses drawing by sonification. *Experimental Brain Research*, pages 1–14, 2020.
9. B. Caramiaux, J. Françoise, W. Liu, T. Sanchez, and F. Bevilacqua. Machine learning approaches for motor learning: A short review. *Frontiers in Computer Science*, 2:16, 2020.
10. B. Guellai, A. Callin, F. Bevilacqua, D. Schwarz, A. Pitti, S. Boucenna, M. Gratier, Sensus Communis: Some Perspectives on the Origins of Non-synchronous Cross-Sensory Associations. *Frontiers in Psychology*, Frontiers, 2019, 10:523
11. B. Matuszewski,, N. Schnell, F. Bevilacqua,. Interaction Topologies in Mobile-Based Situated Networked Music Systems. *Wireless Communications and Mobile Computing*, 2019.
12. S. Delle Monache, D. Rocchesso, F. Bevilacqua, G. Lemaitre, S. Baldan, and A. Cera, "Embodied sound design", *International Journal of Human-Computer Studies* 118 (2018), 47–59.
13. J. Françoise, F. Bevilacqua, "Motion-Sound Mapping through Interaction: An Approach to User-Centered Design of Auditory Feedback Using Machine Learning" *ACM Transactions on Interactive Intelligent Systems (TiiS)* 8 (2), 16, 2018
14. B. Caramiaux, F. Bevilacqua, M. M. Wanderley, and C. Palmer, "Dissociable effects of practice variability on learning motor and timing skills," *PloS one*, vol. 13, no. 3, p. e0193580, 2018.
15. E. O. Boyer, A. Portron, F. Bevilacqua, and J. Lorenceau, "Continuous auditory feedback of eye movements: An exploratory study toward improving oculomotor control," *Frontiers in Neuroscience*, vol. 11, 2017.
16. G. Lemaitre, H. Scurto, J. Françoise, F. Bevilacqua, O. Houix, and P. Susini, "Rising tones and rustling noises: Metaphors in gestural depictions of sounds," *PLOS ONE*, vol. 12, pp. 1–30, 07 2017.
17. E. Boyer, F. Bevilacqua, P. Susini, and S. Hanneton, "Investigating three types of continuous auditory feedback in visuo-manual tracking," *Experimental Brain Research*, vol. 235, pp. 235–691, 2017.

18. [F. Bevilacqua](#), E. O. Boyer, J. Francoise, O. Houix, P. Susini, A. Roby-Brami, S. Hanneton, Sensori-motor Learning With Movement Sonification: A Perspective From Recent Interdisciplinary Studies, *Frontiers in Neuroscience*, section Neuroprosthetics, vol 10, article 385, 2016
19. N. Schnell and [F. Bevilacqua](#), Engaging with Recorded Sound Materials through Metaphorical Actions, *Contemporary Music Review*, 38(3), 34–48, 2014
20. A. Tajadura-Jiménez, N. Bianchi-Berthouze, E. Furfaro [F. Bevilacqua](#), Sonification of Surface Tapping Changes Behavior, Surface Perception, and Emotion, *IEEE MultiMedia*, vol. 22, 48–57, 2015.
21. S. F. Alaoui, [F. Bevilacqua](#), and C. Jacquemin, Interactive visuals as metaphors for dance movement qualities, *ACM Transactions on Interactive Intelligent Systems (TiiS)*, 5(3), no. 3, 2015.
22. B. Caramiaux, N. Montecchio, A. Tanaka, and [F. Bevilacqua](#), Adaptive gesture recognition with variation estimation for interactive systems, *ACM Transactions on Interactive Intelligent Systems (TiiS)* vol. 4, 18:1–18:34, 2014
23. B. Caramiaux, J. Françoise, N. Schnell, [F. Bevilacqua](#), Mapping Through Listening, *Computer Music Journal*, 38(3), 34–48, 2014
24. S. Manitsaris, A. Glushkova, [F. Bevilacqua](#), F. Moutarde, Capture, modeling and recognition of expert technical gestures in wheel-throwing art of pottery, *ACM Journal on Computing and Cultural Heritage*, 7(2) :10, 2014.
25. B. Caramiaux, [F. Bevilacqua](#), T. Bianco, N. Schnell, O. Houix, P. Susini, The Role of Sound Source Perception in Gestural Sound Description, *ACM Transaction on Applied Perception*, 11 (1), 2014
26. B. Zamborlin, [F. Bevilacqua](#), M. Gillies, M. d'Inverno, Fluid gesture interaction design: applications of continuous recognition for the design of modern gestural interfaces, *ACM Transactions on Interactive Intelligent Systems*, 3 (4), 2014
27. E. O. Boyer, B. M. Babayan, [F. Bevilacqua](#), M. Noisternig, O. Warusfel, A. Roby-Brami, S. Hanneton, and I. Viaud-Delmon, From ear to hand: the role of the auditory-motor loop in pointing to an auditory source, *Frontiers in Computational Neuroscience*, 7 (26), 2013
28. S. Fdili Alaoui, [F. Bevilacqua](#), B. Bermudez, C. Jacquemin, Dance Interaction with physical model visualization based on movement qualities, *International Journal of Arts and Technologies*, 4 (6), 2013
29. [F. Bevilacqua](#), F. Baschet, S. Lemouton, The Augmented String Quartet: Experiments and Gesture Following, *Journal of New Music Research*, 41 (1), 103-119, 2012
30. B. Caramiaux, M.M. Wanderley, [F. Bevilacqua](#), Segmenting and Parsing Instrumentalists' Gestures, *Journal of New Music Research*, 41 (1), 13-29, 2012
31. T. Bianco, V. Freour, I. Cossette, [F. Bevilacqua](#), R. Caussé, Measures of Facial Muscle Activation, Intra-oral Pressure and Mouthpiece Force in Trumpet Playing, *Journal of New Music Research*, 41 (1), 49-65, 2012
32. I. Viaud-Delmon, J. Mason, N. Karim, [F. Bevilacqua](#), O. Warusfel, A Sounding Body in a Sounding Space: the Building of Space in Choreography–Focus on Auditory-motor Interactions, *Dance Research*, 29, 431-447, 2012
33. B. Bermudez, S. DeLahunta, M. Hoogenboom, C. Ziegler, [F. Bevilacqua](#), S. Fdili Alaoui The Double Skin/Double Mind Interactive Installation, *The Journal for Artistic Research (JAR)*, Janvier, 2011 research catalogue
34. J. Bloit, N. Rasamimanana, [F. Bevilacqua](#), Modeling and segmentation of audio descriptor profiles with Segmental Models, *Pattern Recognition Letters*, 31 (12), 1507–1513, 2010
35. N. Rasamimanana, F. Kaiser, [F. Bevilacqua](#), Perspectives on gesture-sound relationships informed from acoustic instrument studies, *Organised Sound*, 14 (2), 208–216, 2009

36. D. J. Cuccia, F. Bevilacqua, A. J. Durkin, F. R. Ayers, and B. J. Tromberg, Quantitation and mapping of tissue optical properties using modulated imaging, *Journal of Biomedical Optics*, 14 (2), 024012, 2009.
37. S. deLahunta and F. Bevilacqua, Sharing Descriptions of Movement, *International Journal of Performance and Digital Media*, 3 (1), 3–16, 2007.
38. N. Rasamimanana and F. Bevilacqua, Effort-based analysis of bowing movements: evidence of anticipation effects, *Journal of New Music Research*, 37 (4), 339–351, 2008.
39. D. J. Cuccia, F. Bevilacqua, A. J. Durkin, and B. J. Tromberg, Modulated imaging: quantitative analysis and tomography of turbid media in the spatial-frequency domain, *Optics Letters*, 30 (11), 1354–1356, 2005.
40. F. Bevilacqua, J. S. You, C. K. Hayakawa, and V. Venugopalan, Sampling tissue volumes using frequency-domain photon migration, *Physics Review E*, 69 (5), 051908, 2004.
41. C. K. Hayakawa, B. Y. Hill, J. S. You, F. Bevilacqua, J. Spanier, and V. Venugopalan, Use of the delta-p-1 approximation for recovery of optical absorption, scattering, and asymmetry coefficients in turbid media, *Applied Optics*, 43 (24), 4677–4684, 2004.
42. D. B. Jakubowski, A. E. Cerussi, F. Bevilacqua, N. Shah, D. Hsiang, J. Butler, and B. J. Tromberg, Monitoring neoadjuvant chemotherapy in breast cancer using quantitative diffuse optical spectroscopy: a case study, *Journal of Biomedical Optics*, 9 (1), 230–238, 2004.
43. D. Cuccia, F. Bevilacqua, A. Durkin, S. Merritt, B. Tromberg and G. Gulsen, H. Yu, J. Wang, O. Nalcioglu, In-vivo quantification of optical contrast agent dynamics in rat tumors using diffuse optical spectroscopy with MRI co-registration, *Applied Optics*, 42 (16), 2940– 2950, 2003.
44. S. Merritt, F. Bevilacqua, A. J. Durkin, D. J. Cuccia, R. Lanning, B. J. Tromberg, G. Gulsen, Hon Yu, J. Wang and O. Nalcioglu, Monitoring tumor physiology using Diffuse Optical Spectroscopy and MRI co-registration, *Applied Optics*, 42 (16), 2951–2959, 2003.
45. G. Gulsen, Hon Yu, J. Wang and O. Nalcioglu, S. Merritt, F. Bevilacqua, A. J. Durkin, D. J. Cuccia, R. Lanning, B. J. Tromberg, Congruent MRI and Near-infrared spectroscopy for Functional and Structural Imaging of Tumors, *Technology in Cancer Research & Treatment*, 1, 497-505, 2002.
46. P. Thueler, I. Charvet, F. Bevilacqua, M. St Ghislain , G. Ory, P. Marquet , P. Meda , B. Vermeulen , C. Depeursinge, In vivo endoscopic tissue diagnostics based on spectroscopic absorption, scattering, and phase function properties, *Journal of Biomedical Optics*, 8 (3), 495–503, 2003.
47. P. Charvet, P. Thueler, B. Vermeulen, M. Saint-Ghislain, C. Biton, J. Jacquet, F. Bevilacqua, C. Depeursinge, P. Meda, A new optical method for the non-invasive detection of minimal tissue alterations, *Physics in Medicine and Biology*, 47, 2095-2108, 2002.
48. E. Cerussi, D. Jakubowski, N. Shah, F. Bevilacqua, R. Lanning, A. J. Berger, D. Hsiang, J. Butler, R. F. Holcombe, and B. J. Tromberg, Spectroscopy enhances the information content of optical mammography, *Journal of Biomedical Optics* 7, 60-71, 2002.
49. K. Hayakawa, J. Spanier, F. Bevilacqua, A. K. Dunn, J. S. You B. J. Tromberg and V. Venugopalan, Perturbation Monte Carlo methods to solve inverse photon migration problems in heterogeneous tissues, *Optics Letters*, 26, 1335-1337, 2001.
50. E. Cerussi, A. J. Berger, F. Bevilacqua, N. Shah, D. Jakubowski, J. Butler, R F. Holcombe, and B.J. Tromberg, Sources of contrast for quantitative non-invasive optical spectroscopy of breast tissue physiology, *Academic Radiology* 8, 211-218, 2001.
51. F. Bevilacqua, A. J. Berger, A. E. Cerussi, D. Jakubowski, and B. J. Tromberg, Broadband absorption spectroscopy in turbid media by combining frequency-domain and steady-state methods, *Applied Optics* 39, 6498-6507, 2000.

52. T. H. Pham, F. Bevilacqua, T. Spott, J.S. Dam, B. J. Tromberg, and S. Andersson-Engels, Quantifying the absorption and reduced scattering coefficients of tissue-like turbid media over a broad spectral range using a non-contact Fourier interferometric, hyperspectral imaging system, *Applied Optics* 39, 6487-6497, 2000.
53. F. Bevilacqua, C. Depeursinge, Monte Carlo study of diffuse reflectance at source-detector separations close to one transport mean free path, *Journal of the Optical Society of America. A* 16, 2935-2945, 1999.
54. F. Bevilacqua, D. Piguet, P. Marquet, J. D. Gross, B. J. Tromberg, C. Depeursinge, In vivo local determination of tissue optical properties: applications to human brain, *Applied Optics*, 38, 4939-4950, 1999.
55. E. Cuhe, F. Bevilacqua and C. Depeursinge, Digital holography for quantitative phase contrast imaging, *Optics Letters*, 24, 291-293, 1999.
56. F. Bevilacqua, P. Marquet, O. Coquoz and C. Depeursinge, Role of tissue structure in photon migration through breast tissues, *Applied Optics*, 36, 44-51, 1997.
57. F. Bevilacqua, P. Marquet, C. Depeursinge, and E. B. de Haller, Determination of reduced scattering and absorption coefficients by a single charge-coupled-device array measurement, part II: Measurements on biological tissues, *Optical Engineering*, 34, 2064-2069, 1995.
58. P. Marquet, F. Bevilacqua, C. Depeursinge, and E. B. de Haller, Determination of reduced scattering and absorption coefficients by a single charge-coupled-device array measurement, part I: Comparison between experiments and simulations, *Optical Engineering*, 34, 2055-2063, 1995.

Book Chapters (Invited) (13)

1. D. Glowinski, C. Levacher, F. Buchheit, C. Malagoli, B. Matuszewski, S. Schaerlaeken, C. Noera, K. Edwards, C. Chiorri, F. Bevilacqua, D. Grandjean., "Emotional, cognitive, and motor development in youth orchestras," in *Together in Music: Coordination, expression, participation*, p. 250, Oxford University Press, 2021.
2. M. Voillot, F. Bevilacqua, and J. Chevrier, "Le corps au coeur de l'apprentissage grâce au numérique: Proposition d'un nouveau paradigme pour l'éducation à la petite enfance," in *Les dossiers de l'écran: Controverses, paniques morales et usages éducatifs des écrans* (L. Tessier and A. S.-M. (coord.), Editions du Croquant, 2020.
3. F. Bevilacqua, N. Schnell, J. Françoise, E O. Boyer, D. Schwarz, B. Caramiaux, Designing action-sound metaphors using motion sensing and descriptor-based synthesis of recorded sound materials, *Routledge Companion to Embodied Music Interaction*, pp 391-401, 2017.
4. B. Caramiaux, J. Françoise, F. Bevilacqua, *Dynamic Bayesian networks for musical interaction*, Routledge Companion to Embodied Music Interaction, 2017
5. A. Tajadura-Jiménez, A. Väljamäe, F. Bevilacqua, N. Bianchi-Berthouze, Principles for Designing Body-Centered Auditory Feedback, ch. 18, pp. 371-403. Wiley-Blackwell, 2017.
6. F. Bevilacqua, N. Schnell, From Musical Interfaces To Musical Interactions, in *Human Computer Confluence: Transforming Human Experience Through Symbiotic Technologies*, Eds. A. Gaggioli, A. Ferscha, G. Riva, S. Dunne, I. Viaud-Delmon, Published by De Gruyter Open Ltd, Warsaw/Berlin, 124-139, 2016
7. F. Bevilacqua, N. Schnell, S. Fdili Alaoui Gesture capture: Paradigms in interactive music/dance systems, in *Emerging Bodies*, G. Klein and S. Noeth ed., transcript Verlag, 183-193, 2011
8. F. Bevilacqua, N. Schnell, N. Rasamimanana, B. Zamborlin, F. Guedy, Online Gesture Analysis and Control of Audio Processing, in *Musical Robots and Interactive Multimodal Systems*, Springer Tracts in Advanced Robotics, Vol. 74, 127-142, Springer Verlag, 2011.

9. N. Schnell, F. Bevilacqua, F. Guédy, N. Rasamimanana, Playing and Replaying – Sound, Gesture and Music Analysis and Re-Synthesis for the Interactive Control and Re-Embodiment of Recorded Music, in *Gemessene Interpretation - Computergestützte Aufführungsanalyse im Kreuzverhör der Disziplinen, Klang und Begriff*, H. von Loesch and S. Weinzierl ed., Vol. 4, 267-281, Schott Verlag, Mainz, 2011.
10. S. Dahl, F. Bevilacqua, N. Rasamimanana, R. Bresin, M. Clayton, L. Leante, Gesture in Performance, in *Musical Gestures: Sound, Movement, and Meaning*, R. I Godoy and M. Leman ed., 36–68, Routledge 2009
11. D. Jakubowski, F. Bevilacqua, S. Merritt, A. Cerussi, B.J. Tromberg, Quantitative Absorption and Scattering Spectra, in *Thick Tissues using Broadband Diffuse Optical Spectroscopy*, Biomedical Optical Imaging, J. Fujimoto and D. Farkas ed., Oxford University Press, 330-355, 2009
12. F. Bevilacqua, Momentary Notes on Capturing Gestures in *Capturing Intentions*, Editors EG/PC and the Amsterdam School for the Arts, 2007.
13. F. Bevilacqua, N. Rasamimanana, N. Schnell, Interfaces gestuelles, captation du mouvement et création artistique, in *L'inouï #2 Revue de l'Ircam*, Editions Léo Scheer, Berlin, 101-111, 2006

Book Chapters (LNCS – Peers reviewed) (7)

1. E. Boyer, Q. Pyanet, S. Hanneton, F. Bevilacqua, Learning Movement Kinematics with a Targeted Sound, Lecture Notes in Computer Science, Vol 8905, 218-233, 2014
2. O. Houix, N. Misdariis, P. Susini, F. Bevilacqua, F. Gutierrez, Sonically Augmented Artifacts: Design Methodology Through Participatory Workshops, Lecture Notes in Computer Science, Vol 8905, 20-4, 2014
3. F. Bevilacqua, B. Zamborlin, A. Sypniewski, N. Schnell, F. Guédy, N. Rasamimanana, Continuous realtime gesture following and recognition, Lecture Notes in Computer Science (LNCS), Vol. 5934, 73–84, Springer-Verlag, 2010
4. T. Bianco, V. Freour, N. Rasamimanana, F. Bevilacqua, R. Caussé, Parametric modeling of gestural co-articulation effects in music performance, Lecture Notes in Computer Science (LNCS), Vol. 5934, 134-145, Springer Verlag, 2010.
5. B. Caramiaux, F. Bevilacqua, N. Schnell, Towards a Gesture-Sound Cross-Modal Analysis, Lecture Notes in Computer Science (LNCS), Vol. 5934, 158-170, Springer Verlag, 2010.
6. N. Rasamimanana, D. Bernardin, M. Wanderley, F. Bevilacqua, String Bowing Gestures at Varying Bow Stroke Frequencies: A Case Study, Lecture Notes In Artificial Intelligence (LNCS), vol. 5085, 216-226, Springer-Verlag, 2009
7. N. Rasamimanana, E. Fléty, F. Bevilacqua Gesture Analysis of Violin Bow Strokes, Gesture in Human-Computer Interaction and Simulation, Lecture Notes in Computer Science (LNCS), Vol. 3881, 145-155, Springer-Verlag, 2006

Peer-Reviewed Conference Proceedings/Extended Abstracts (103)

1. J. Françoise, G. Meseguer-Brocal, and F. Bevilacqua, “Movement Analysis and Decomposition with the Continuous Wavelet Transform”, in *Proceedings of the 8th International Conference on Movement and Computing*, in MOCO '22. 2022.
2. V. Paredes, J. Françoise, and F. Bevilacqua, “Entangling Practice with Artistic and Educational Aims: Interviews on Technology-based Movement-Sound Interactions”, in *NIME 2022*, PubPub, 2022.
3. B. Caramiaux, A. Altavilla, J. Françoise, and F. Bevilacqua, “Gestural Sound Toolkit: Reflections on an Interactive Design Project”, in *International Conference on New Interfaces for Musical Expression*, PubPub, 2022.

4. P. Antoniadis, S. Paschalidou, A. Duval, J.-F. Jégo, and F. Bevilacqua, "Rendering embodied experience into multimodal data: concepts, tools and applications for Xenakis' piano performance", in *Xenakis 22: Centenary International Symposium*, 2022.
5. J. Ley-Flores, E. Alshami, A. Singh, F. Bevilacqua, N. Bianchi-Berthouze, O. Deroy, and A. Tajadura-Jiménez, "Bodies moving with sound: Effects of pitch and musical sounds on body-representations". 2021.
6. J. Ley-Flores, L. Turmo Vidal, N. Berthouze, A. Singh, F. Bevilacqua, and A. Tajadura-Jiménez, "Soni- band: Understanding the effects of metaphorical movement sonifications on body perception and physical activity," in *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, pp. 1–16, 2021.
7. W. Liu, A. Dementyev, D. Schwarz, E. Flety, W. E. Mackay, M. Beaudouin-Lafon, and F. Bevilacqua, "Sonichoop: Using interactive sonification to support aerial hoop practices," in *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, pp. 1–16, 2021.
8. T. Sanchez, B. Caramiaux, J. Françoise, F. Bevilacqua, and W. E. Mackay, "How do people train a machine? strategies and (mis) understandings," *Proceedings of the ACM on Human-Computer Interaction*, vol. 5, no. CSCW1, pp. 1–26, 2021.
9. H. Scurto, B. Caramiaux, and F. Bevilacqua, "Prototyping machine learning through diffractive art practice," in *Designing Interactive Systems Conference 2021*, pp. 2013–2025, 2021.
10. E. Walton, B. Caramiaux, S. F. Alaoui, F. Bevilacqua, and W. E. Mackay, "Reconciling technology-driven and experiential approaches for movement-based design," in *IHM'20.21-32e Conférence Francophone pour l'Interaction Homme-Machine*, 2021.
11. D. Schwarz, W. Liu, and F. Bevilacqua. A survey on the use of 2d touch interfaces for musical expression. In *New Interfaces for Musical Expression (NIME)*, 2020.
12. S. Lemouton, F. Bevilacqua, R. Borghesi, E. Fléty, S. Haapamäki. Following Orchestra Conductors: the IDEA Open Movement Dataset. *MOCO '19: 6th International Conference on Movement and Computing*, Oct 2019, Tempe AZ USA, France. pp.1–6,
13. H. Scurto, Wanyu Liu, B. Matuszewski, F. Bevilacqua, J.-L. Frechin, U. Petrevski, N. Schnell, *Entrain: Encouraging Social Interaction in Collective Music Making*. ACM SIGGRAPH Studio, Jul 2019, Los Angeles, United States.
14. J. Ley-Flores, F. Bevilacqua, N. Bianchi-Berthouze, N., A. Tajadura-Jiménez. Altering body perception and emotion in physically inactive people through movement sonification. In : *2019 8th International Conference on Affective Computing and Intelligent Interaction (ACII)*. IEEE, 2019. p. 1-7.
15. M. Voillot, F. Bevilacqua, J. Chevrier, C. Eliot. Exploring Embodied Learning for Early Childhood Education. In : *Proceedings of the 18th ACM International Conference on Interaction Design and Children*. 2019. p. 747-750.
16. F. Bevilacqua, I. Peyre, M. Segalen, V. Marchand-Pauvert, P. Pradat-Diehl, and A. Roby-Brami, Exploring different movement sonification strategies for rehabilitation in clinical settings, *Proceedings of the 5th International Conference on Movement and Computing*, ACM, 2018, p. 42.
17. F. Bevilacqua, O. Houix, N. Misdariis, P., Susini, D. Schwarz, D. MIMES: outil de prototypage et d'exploration pour la création sonore. Abstract for the Workshop "IHM pour l'exploration et la créativité", *Conférence francophone sur l'Interaction Homme-Machine, Oct 2018, Brest, France*.
18. B. Matuszewski and F. Bevilacqua, *Toward a web of audio things*, *Sound and Music Computing Conference*, 2018.
19. B. Matuszewski, J. Larralde, and F. Bevilacqua, *Designing movement driven audio applications using a web-based interactive machine learning toolkit*, *Web Audio Conference (WAC)*, 2018.

20. A. Roby-Brami, I. Peyre, M. Segalen, A. Lackmy-Vallee, V. Marchand-Pauvert, P. Pradat-Diehl, F. [Bevilacqua](#), Upper limb rehabilitation with movement-sound coupling after brain lesions, *Annals of Physical and Rehabilitation Medicine* 61 (2018), e488.
21. H. Scurto and F. Bevilacqua, Appropriating music computing practices through human-ai collaboration, *Journées d'Informatique Musicale (JIM 2018)*, 2018. ←hal-01791504v1→
22. H. Scurto, F. Bevilacqua, and B. Caramiaux, Perceiving agent collaborative sonic exploration in interactive reinforcement learning, *Proceedings of the 15th Sound and Music Computing Conference (SMC 2018)*, 2018.
23. A. Tajadura-Jiménez, F. Cuadrado, P. Rick, N. Bianchi-Berthouze, A. Singh, A. Väljamäe, and F. Bevilacqua, Designing a gesture-sound wearable system to motivate physical activity by altering body perception, *Proceedings of the 5th International Conference on Movement and Computing, ACM*, 2018, p. 46.
24. S. Fdili Alaoui, J. Françoise, T. Schiphorst, K. Studd, and F. [Bevilacqua](#), "Seeing, sensing and recognizing laban movement qualities," in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems, CHI '17*, (New York, NY, USA), pp. 4009–4020, ACM, 2017.
25. F. [Bevilacqua](#), J. Larralde, and B. Matuszewski, "Prototypes for exploring gestural interaction using smartphones," in *Adjunct proceedings of the Interact'17 Conference*, 2017.
26. A. Dubos, F. [Bevilacqua](#), J. Larralde, J. Chevrier, and J.-F. Jégo, "Designing gestures for interactive systems: Towards multicultural perspectives," in *Proceedings of the Interact'17 Conference (extended abstract)*, 2017.
27. B. Caramiaux, F. [Bevilacqua](#), C. Palmer, and M. Wanderley, "Individuality in piano performance depends on skill learning," in *Proceedings of the 4th International Conference on Movement Computing*, p. 14, ACM, 2017.
28. H. Scurto, F. [Bevilacqua](#) J. Françoise, "Shaping and exploring interactive motion-sound mappings using online clustering techniques," in *International Conference on New Interfaces For Musical Expression (NIME'17)*, 2017.
29. D. Schwarz, G. Lorieux, E. Lizère, A. Tarrès, and F. [Bevilacqua](#), "A topo-ponic table for tangible sonic interaction," in *International Computer Music Conference (ICMC)*, 2017.
30. F. [Bevilacqua](#), B. Caramiaux, and J. Françoise, Perspectives on real-time computation of movement coarticulation, in *Proceedings of the 3rd International Symposium on Movement and Computing, MOCO '16*, 35:1–35:5, ACM, 2016.
31. J. Françoise, F. [Bevilacqua](#), and T. Schiphorst, Gaussbox: Prototyping movement interaction with interactive visualizations of machine learning, in *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems, CHI EA '16*, 3667–3670, ACM, 2016.
32. J. Françoise, O. Chapuis, S. Hanneton, and F. [Bevilacqua](#), Soundguides: Adapting continuous auditory feedback to users, in *Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems, CHI EA '16*, , 2829–2836, ACM, 2016.
33. S. Manitsaris, A. Tsagaris, A. Glushkova, F. Moutarde, and F. [Bevilacqua](#), Fingers gestures early- recognition with a unified framework for RGB or depth camera, in *Proceedings of the 3rd International Symposium on Movement and Computing, MOCO '16*, 26:1–26:8, ACM, 2016.
34. O. Houix, S. Delle Monache, H. Lachambre, F. Bevilacqua, D. Rocchesso, and G. Lemaitre, "Innovative Tools for Sound Sketching Combining Vocalizations and Gesture," in *Proceedings of the Audio Mostly conference 2016*, (Norrköping, Sweden), pp. 12–19, 2016.
35. J. Françoise, N. Schnell, and F. [Bevilacqua](#), MaD: mapping by demonstration for continuous sonification. In *ACM SIGGRAPH 2014 Emerging Technologies*, 2014.

36. J. Françoise, S. Fdili Alaoui, T. Schiporst, F. Bevilacqua, Vocalizing dance movement for interactive sonification of Laban effort factors, Proceedings of the 2014 conference on Designing interactive systems, 2014
37. J. Françoise, N. Schnell, R. Borghesi, F. Bevilacqua, Probabilistic Models for Designing Motion and Sound Relationships, Proceedings of the 2014 International Conference on New Interfaces for Musical Expression (NIME'14), 2014
38. A. Tajadura-Jiménez, B. Liu, N. Bianchi-Berthouze, F. Bevilacqua, Using Sound in Multi-Touch Interfaces to Change Materiality and Touch Behavior, Proceedings of the Nordic conference on human-computer interaction (NordCHI'14), 2014
39. K. Sanlaville, F. Bevilacqua, C. Pelachaud, G. Assayag, Adaptation in an Interactive Model designed for Human Conversation and Music Improvisation: a preparatory outline, WACAI 2014.
40. F. Bevilacqua, N. Schnell, N. Rasamimanana, J. Bloit, E. Flety, B. Caramiaux, J. Françoise, E. Boyer, De-Mo: designing action-sound relationships with the MO interfaces, CHI'13 EA on Human Factors in Computing Systems, 2907-2910, 2013
41. F. Bevilacqua, S. Fels, A. R. Jensenius, M. J. Lyons, N. Schnell, A. Tanaka, SIG NIME: music, technology, and human-computer interaction, CHI'13EA on Human Factors in Computing Systems, 2529-2532, 2013
42. B. Caramiaux, F. Bevilacqua, A. Tanaka, Beyond recognition: using gesture variation for continuous interaction, CHI'13 EA on Human Factors in Computing Systems, 2109-2118, 2013
43. S. Fdili Alaoui, C. Jacquemin, F. Bevilacqua, Chiseling bodies: an augmented dance performance, CHI'13 EA on Human Factors in Computing Systems, 2915-2918, 2013
44. J. Françoise, N. Schnell, F. Bevilacqua, A Multimodal Probabilistic Model for Gesture-based Control of Sound Synthesis, Proceedings of the 21st ACM international conference on Multimedia (MM'13), Barcelona, 2013
45. J. Françoise, N. Schnell, F. Bevilacqua, Gesture-based Control of Physical Modeling Sound Synthesis: a Mapping-by-Demonstration Approach, Proceedings of the 21st ACM international conference on Multimedia (MM'13), Barcelona, 2013
46. D Fober, S Letz, Y Orlarey, F. Bevilacqua, Programming Interactive Music Scores with INScore, Proceedings of the Sound and Music Computing Conference 2013, 185-190, 2013.
47. E Furfaro, N Berthouze, F. Bevilacqua, A Tajadura-Jimenez, Sonification of surface tapping: Influences on behavior, emotion and surface perception. Proceedings of the Interactive Sonification Workshop (ISon 2013), 2013.
48. J. Françoise, I. Lallemand, T. Artières, F. Bevilacqua, N. Schnell, D. Schwarz, "Perspectives pour l'apprentissage interactif du couplage geste-son", Actes des Journées d'Informatique Musicale (JIM 2013), Paris, 2013
49. E. O. Boyer, Q. Pyanet, S. Hanneton, and F. Bevilacqua, Guiding Motion using a Sound Target, Proceedings of the 10th International Symposium on Computer Music Multidisciplinary Research (CMMR) Sound, Music and Motion, 176-189, 2013.
50. E. O. Boyer, F. Bevilacqua, F. Phal, and S. Hanneton, "Low-cost motion sensing of table tennis players for real time feedback," Proceedings of the 13th International Table Tennis Federation Sports Science Congress, Paris, France, 2013.
51. N. Rasamimanana, F. Bevilacqua, J. Bloit, N. Schnell, E. Fléty, A. Cera, U. Petrevski, J.-L. Frechin, The urban musical game: using sport balls as musical interfaces, CHI'12 EA on Human Factors in Computing Systems, 1027-1030, 2012
52. S. Fdili Alaoui, B. Caramiaux, M. Serrano, F. Bevilacqua, Movement Qualities as Interaction Modality, Proceedings of the Designing Interactive Systems (DIS'2012), Newcastle, 2012

53. J. Françoise, B. Caramiaux, F. Bevilacqua, A Hierarchical Approach for the Design of Gesture-to-Sound Mappings, Proceedings of the Conference on Sound and Music Computing (SMC), Copenhagen, 2012
54. M. Kimura, N. Rasamimanana, F. Bevilacqua, N. Schnell, B. Zamborlin, E. Fléty, Extracting Human Expression For Interactive Composition with the Augmented Violin, Proceedings of the International Conference on New Interfaces for Musical Expression (NIME), 2012
55. N. Schnell, F. Bevilacqua, N. Rasamimanana, J. Bloit, F. Guedy, E. Flety, Playing the MO – Gestural Control and Re-Embodiment of Recorded Sound and Music, Proceedings of the International Conference on New Interfaces of Musical Expression (NIME), 2011.
56. B. Caramiaux, F. Bevilacqua, N. Schnell, Sound Selection by Gestures, Proceedings of the International Conference on New Interfaces for Musical Expression (NIME), 2011.
57. B. Caramiaux, P. Susini, T. Bianco, F. Bevilacqua, O. Houix, N. Schnell, N. Misdariis, Gestural Embodiment of Environmental Sounds: an Experimental Study, Proceedings of the International Conference on New Interfaces for Musical Expression (NIME), 2011.
58. N. Rasamimanana, F. Bevilacqua, N. Schnell, F. Guedy, E. Come Maestracci, B. Zamborlin, JL. Frechin, U. Petrevski, Modular Musical Objects Towards Embodied Control Of Digital Music, Proceedings of the Conference on Tangible Embedded and Embodied Interaction (TEI'11), 2011
59. B. Caramiaux, F. Bevilacqua, N. Schnell, Analysing Gesture and Sound Similarities with a HMM-based Divergence Measure, Proceedings of the Sound and Music Computing conference (SMC), Barcelona, Spain, 2010
60. T. Bianco, M. Wanderley, F. Bevilacqua Mimicry of tone production: results from a pilot experiment, Proceedings of Sound and Music Computing Conference (SMC), Barcelona, Spain, 2010
61. G. Leslie, D. Schwarz, O. Warusfel, F. Bevilacqua, B. Zamborlin, P. Jodlowski, N. Schnell, Grainstick: A Collaborative, Interactive Sound Installation, Proceedings of the International Computer Music Conference (ICMC), New York, 2010
62. F. Bevilacqua, B. Zamborlin, N. Rasamimanana, N. Schnell, Contrôle gestuel continu de médias sonores et visuels, Forum on tactile and gestural interaction, Lille, 2010.
63. J. Bloit, N. Rasamimanana, F. Bevilacqua, Towards morphological sound description using segmental models, Proceedings of the International Conference on Digital Audio Effects DAFx, Milan, Italy, 2009
64. G. Leslie, D. Schwarz, O. Warusfel, F. Bevilacqua, P. Jodlowski, Wavefield synthesis for interactive sound installations, Proceedings of the 127th AES Convention, New-York, 2009
65. N. Rasamimanana, F. Guedy, N. Schnell, J.-P. Lambert, F. Bevilacqua, Three pedagogical scenarios using the Sound and Gesture Lab, Proceedings of the 4th i-Maestro Workshop on Technology-Enhanced Music Education, Genova, Italy, 5-10, 2008.
66. T. Koerselman, O. Larkin, B. Ong, N. Leroy, J.-P. Lambert, D. Schwarz, F. Guédy, N. Schnell, F. Bevilacqua, K. Ng , SDIF Integration in i-Maestro Gesture Tools., 4th i-Maestro Workshop on Technology-Enhanced Music Education, 15-20, 2008
67. F. Bevilacqua, F. Guédy, N. Schnell, E. Fléty, N. Leroy, Wireless sensor interface and gesture-follower for music pedagogy, Proceedings of the International Conference of New Interfaces for Musical Expression (NIME), 124-129, 2007
68. F. Guédy, N. Leroy, F. Bevilacqua, T. Grosshauser, N. Schnell, Pedagogical experimentation using the Sound and Gesture Lab, 3rd I-MAESTRO Workshop, Barcelona 2008.
69. K. Ng, O. Larkin, T. Koerselman, B. Ong, D. Schwarz, F. Bevilacqua, The 3D Augmented Mirror: Motion Analysis for String Practice Training, Proceedings of the International Computer Music Conference (ICMC). Copenhagen, vol. II, 53-56, 2007.

70. I. Viaud-Delmon, J. Bresson, F. Pachet, F. Bevilacqua, P. Roy, O. Warusfel, Eartoy : interactions ludiques par l'audition, Journées d'Informatique Musicale - JIM'07, 2007
71. F. Bevilacqua, N. Rasamimanana, E. Fléty, S. Lemouton, F. Baschet ,The augmented violin project: research, composition and performance report, Proceedings of the International Conference on New Interfaces for Musical Expression (NIME), Paris, 2006
72. N. Leroy, E. Fléty, F. Bevilacqua Reflective Optical Pickup For Violin, Proceedings of the International Conference on New Interfaces for Musical Expression (NIME), 2006
73. E. Schoonderwaldt, N. Rasamimanana, F. Bevilacqua Combining accelerometer and video camera: Reconstruction of bow velocity profiles, Proceedings of the International Conference on New Interfaces for Musical Expression (NIME), 2006
74. N. Schnell, F. Bevilacqua, D. Schwarz, N. Rasamimanana, F. Guédy, Technology and Paradigms to Support the Learning of Music Performance, 2nd i-Maestro Workshop on Technology Enhanced Music Education, Leeds, 2006
75. F. Bevilacqua, R. Muller, N. Schnell, MnM: a Max/MSP mapping toolbox, Proceedings of the New Interfaces for Musical Expression (NIME), Vancouver, 2005
76. F. Bevilacqua, R. Muller A Gesture follower for performing arts, Gesture Workshop, 2005
77. N. Schnell, R. Borghesi, D. Schwarz, F. Bevilacqua, R. Müller, FTM — Complex data structures for Max, Proceedings of the International Computer Music Conference (ICMC), Barcelona, 2005
78. F. Bevilacqua, E. Fléty, Captation et analyse du mouvement pour l'interaction entre danse et musique, Rencontres Musicales Pluridisciplinaires - le corps & la musique, Lyon, 2004
79. E. Fléty, N. Leroy, J. Ravarini, F. Bevilacqua, Versatile sensor acquisition system utilizing Network Technology, International Conference on New Interfaces for Musical Expression (NIME), Hamamatsu, 2004
80. F. Bevilacqua, L. Naugle and I. Valverde, Virtual dance and music environment using motion capture, Proceedingd of the IEEE - Multimedia Technology And Applications Conference, Irvine CA, 2001.
81. F. Bevilacqua, J.Ridenour, and David J. Cuccia, Mapping Music to Gesture: A study using 3D motion capture data, Proceeding of the Workshop/Symposium on Sensing and Input for Media-centric Systems, Santa Barbara CA, 2002.
82. C. Dobrian and F. Bevilacqua, Gestural Control of Music Using the Vicon 8 Motion Capture System, Proceedings of International Conference on New Interfaces for Musical Expression (NIME), Montréal, Quebec, Canada.
83. D. J. Cuccia, F. Bevilacqua, A. Li, A. J. Durkin, R. D. Frostig, and B. J. Tromberg, Modulated Imaging: Advancements in Diffuse Optical Tomography and Spectroscopy, in Biomedical Optics, Technical Digest, Optical Society of America, 2006.
84. D. J. Cuccia, F. Bevilacqua, A. J. Durkin, and B. J. Tromberg, Quantitative Recovery of Tissue Optical Properties in the Spatial Frequency Domain Using Modulated Imaging, in Frontiers in Optics, OSA Technical Digest Series, Optical Society of America, 2005.
85. D. J. Cuccia, F. Bevilacqua, A. Durkin, S. Merritt, B. Tromberg, G. Gulsen, H. Yu, J. Wang, O. Nalcioglu, In-vivo quantification of optical contrast agents using a combined frequency-domain and steady state technique, Technical Digest, OSA Biomedical Topical Meeting, 2002.
86. F. Bevilacqua, D. J. Cuccia, A. J. Durkin, and B. J. Tromberg, Quantitative analysis and imaging of subsurface heterogeneities using spatially structured illumination, Technical Digest, OSA Biomedical Topical Meeting, 2002.
87. S. Merritt, F. Bevilacqua, A. J. Durkin, D. J. Cuccia, R. Lanning and B. J. Tromberg, G. Gulsen, H. Yu, J. Wang, O. Nalcioglu, Near-infrared spectroscopy and MRI co-registration of tumor tissue physiology, Technical Digest, OSA Biomedical Topical Meeting, 2002.

88. D. B. Jakubowski, A. E. Cerussi, F. Bevilacqua, N. Shah, B. J. Tromberg, Monitoring breast tumor response to chemotherapy with broadband near-infrared tissue spectroscopy, Technical Digest, OSA Biomedical Topical Meeting, 2002.
89. J. Tromberg, A. E. Cerussi, D. Jakubowski, N. Shah, F. Bevilacqua, A.J. Berger, J. Butler, R. F. Holcombe, Functional diffuse optical spectroscopy of human breast tissue, Meeting of the IEEE Lasers and Electro-Optics Society, vol.1, 259-260, 2001.
90. J. Berger, F. Bevilacqua, A. E. Cerussi. B. Jakubowski, J.A. Butler, D. Hsiang and B. J. Tromberg, Broadband absorption spectroscopy by combining frequency-domain and steady-state techniques, Proc. SPIE Vol. 4250, 437-442, 2001.
91. E. Cerussi, F. Bevilacqua, N. Shah D. B. Jakubowski, A. J. Berger, R. M. Lanning, and B. J. Tromberg, The effects of water and lipids on NIR optical breast measurements, Proc. SPIE Vol. 4250, 419-428, 2001.
92. F. Bevilacqua, J.S. You, B. J. Tromberg and V. Venugopalan, Sampling of tissue volume by frequency-domain photon migration, Technical Digest, OSA Biomedical Topical Meetings, 2000.
93. P. Thueler, F. Bevilacqua, C. Depeursinge, G. Ory, N. Azar-Pey, B. Vermeulen, I. Charvet, D. Bosco, and P. Meda, A new method to simultaneously determine the absorption and elastic scattering spectra of tissues in vivo, Technical Digest, OSA Biomedical Topical Meetings, 2000.
94. F. Bevilacqua, P. Thueler, C. Depeursinge, B. Vermeulen, D. Bosco, and P. Meda, Optical biopsy from simultaneous determination of elastic scattering and absorption tissue properties, Technical Digest, Optical Society of America, Biomedical Optics, Novel Biomedical Optical Spectroscopy, Imaging, and Diagnostics, 1999.
95. F. Bevilacqua, D. Piguet, P. Marquet, J.D. Gross, D. Jakubowski, V. Venugopalan, B. J. Tromberg and C. Depeursinge, Superficial tissue optical property determination using spatially resolved measurements close to the source: comparison with frequency-domain photon migration measurements, Proc. SPIE, Vol. 3597, 540-547, 1999.
96. L. Montandon-Varoda, D. Salzman, F. Bevilacqua, and C. Depeursinge, Transillumination of breast phantoms using diffuse photon-density waves, Proc. SPIE, Vol. 2597, 503-507, 1999.
97. F. Bevilacqua, D. Piguet, P. Marquet, J.D. Gross, B.J. Tromberg and C. Depeursinge, In vivo local determination of tissue optical properties, Proc. SPIE, Vol. 3194, 262-268, 1998.
98. L. Montandon, D. Salzman, F. Bevilacqua, and C. Depeursinge, Transillumination of breast phantoms using diffuse photon density waves, Proc. SPIE Vol. 3566, p. 236-246, 1998.
99. Depeursinge, F. Bevilacqua, and P. Marquet, Failure of radiative transport theory in homogenous scattering media to predict the point spread function (PSF) of transillumination images through some biological tissues, OSA Trends In Optics and Photonics Series, Vol. 2 Advances in Optical Imaging and Photon Migration, 1996.
100. F. Bevilacqua, C. Depeursinge, and E. B. de Haller, Antagonistic role of noise and spatial resolution in the time-gated transillumination image quality: experiments in vitro on breast tissues, Proc. SPIE, Vol. 2389, 575-581, 1995.
101. F. Bevilacqua, P. Marquet, and C. Depeursinge, Light scattering in biological tissues: Comparison between theory and experiments of spatial and temporal intensity profiles, Proc. SPIE Vol. 2626, 9-16, 1995.
102. P. Marquet, F. Bevilacqua and C. Depeursinge, Computing the light distribution in turbid media for different scattering and absorption coefficients from a single Monte Carlo simulation, Proc SPIE, Vol. 2626, 17-24, 1995.
103. F. Bevilacqua, P. Marquet and C. Depeursinge, Determination of biological tissues optical coefficients from the spatial or temporal scattered profile of a collimated pulsed light source. Proc. SPIE, Vol. 2326, 173-184, 1994.

Ph.D. Dissertation

F. Bevilacqua, "Local optical characterization of biological tissues in vitro and in vivo", Ph.D. thesis n°1781, Swiss Federal Institute of Technology (EPFL), 1998. Thesis Adviser: Prof. Ch. Depeursinge.

Habilitation

F. Bevilacqua, Movement & Sound interaction, Habilitation à diriger les recherches, Université Pierre et Marie Curie (Paris VI), 2014

PATENTS

1. European EP 1119763 B1 and US patent 6,850,656, Method and apparatus for measuring locally and superficially the scattering and absorption properties of turbid media, Bevilacqua F., Depeursinge C.
2. US patent 6,958,815, Method and apparatus for performing quantitative analysis and imaging surfaces and subsurfaces of turbid media using spatially structured illumination, Bevilacqua F., Cuccia D., Durkin A.J., Tromberg B. J.
3. US patent 7,729,750, Method and apparatus for high resolution spatially modulated fluorescence imaging and tomography, Tromberg, B.J. Durkin A.J. Cuccia D., Bevilacqua F.
4. US patent 7,428,434, Quantitative broadband absorption and scattering spectroscopy in turbid media by combined frequency-domain and steady state methodologies, Tromberg B.J., Berger A.J., Cerussi A.E., Bevilacqua F., Jakubowski D.
5. US patent 8,014,569, Method and apparatus for performing qualitative and quantitative analysis of produce (fruit, vegetables) using spatially structured illumination Durkin A.J. Cuccia D., Bevilacqua F., Tromberg, B.J.