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Citizenship: Swiss and Italian

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RESEARCH THEMES

- Since 2000 Sound and Music Computing
Computer-Mediated Musical Interactions
Movement Computing - Gesture modeling
Gesture-based 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*), Department of Micro-Engineering, Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland
- 1992-1993 **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-Université Pierre et Marie Curie, Paris, France
Team leadership, research and development coordination
(team of 10-15 people with 5 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**, Gymnase du Bugnon, Lausanne, Switzerland

Other Experiences

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

HONORS/AWARDS/FELLOWSHIPS

- 2013 **Prix ANR du Numérique**: Award from the French National Research Agency, category "Societal Impact" as 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

- 2011-2015 **Legos**, Evaluation of the sensorimotor learning in gesture-sound interactive systems, <http://legos.ircam.fr/>
French National Research Agency (ANR)
Partners: Ircam, Université Paris-Descartes/CNRS,
- 2010-2011 **Urban Musical Game**, Festival Futur en Seine 2011
Cap Digital, Région Ile de France
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)
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 as PI

- 2014-2016 **RAPID-MIX**, Realtime Adaptive Prototyping for Industrial Design of Multimodal Interactive eXpressive technology. Coord.: University Pompeu Fabra, Spain. H2020 - ICT-18-2014
- 2014-2015 **MusicBricks**, Musical Building Blocks for Digital Makers and Content Creators. Coord.: Stromatolite Innovation Lab. H2020 - ICT-22-2014
- 2014-2017 **Skat-VG**, Sketching Audio Technologies using Vocalizations and Gestures, FP7-ICT (FET), Coord.: University of Padova
- 2008-2010 **SAME**, Sound And Music For Everyone Everyday Everywhere Everyway, FP7-ICT, Networked media, Coord.: University of Genova, Italy
- 2005-2008 **I-Maestro**, Interactive Multimedia Environment for Technology Enhanced Music Education and Creative Collaborative Composition and Performance, 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.

French projects as PI

- 2014-2017 **CoSiMa**, Collaborative Situated Media, French National Research Agency
- 2012-2020 **Labex SMART**, Smart Human/Machine Interactions in the Digital Society

- Project ISMES -Embedded sensorimotor interfaces for rehabilitation and substitution
 - Project SenSe - Socio-Emotional Signals
- 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)

- 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

- 2014- Pavlos Antoniadis, Embodied Navigation of Complex Notation: Rethinking Musical Interaction from a Performer Perspective. Co-supervised with Prof. P. Michel, Université de Strasbourg.
- 2013- Kevin Sanlaville, Temporal adaptation of interactions. Co-supervised with C. Pelachaud -Telecom ParisTech and G. Assayag -Ircam.
- 2012- 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 Committee (other than the list above)

- 2015 Aymeric Mazurelle, Analyse de scènes multimodales: application à la classification de pas de danse, PhD Advisors, G. Richard and S. Essid, TELECOM Paris Tech (planned for Oct 1st 2015)

- Nesrine Fourati, Classification et Caractérisation de l'Expression Corporelle des Emotions dans des Actions Quotidiennes. PhD Advisors C. Pelachaud, TELECOM Paris Tech (planned for Sept 16 2015)
- Alaeddine Mihoub, Apprentissage de modèles statistiques de comportement multimodaux en interaction. PhD Advisors C. Wolf du LIRIS/INSA & Lyon II, G. Bailly IPSA Lab Grenoble. (planned for Oct 8 2015)
- 2014 Yu Ding, Data-driven Expressive Animation Model of Speech and Laughter for an Embodied Conversational Agent. PhD Advisors C. Pelachaud and Prof. T. Artières, . TELECOM Paris Tech
- 2013 Jean-Françoise Jego, Interaction base sur des gestes définies par l'utilisateur: Application à la réalité virtuelle. PhD Advisor Prof. P. Fuchs, Mines ParisTech
- 2012 Pieter-Jan Maes, The perception of musical expressiveness from the viewpoint of the embodied music cognition theory". PhD Advisor Prof. Marc Leman, Ghent University, IPEM-Dept. of Musicology

Master supervision

- 2014 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 *Images et Systèmes*, 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

- 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 Workshop organization, International Workshop on Movement Qualities and Physical Models, Ircam, Paris, France
- 2010 Workshop organization, 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

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

Advisory Boards

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

Search Committee

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

Reviewer

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, 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

TEACHING

Courses

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 Lecture on Gesture Analysis and Recognition, in master ATIAM, UPMC.
2007-2012 Lecture on Computer Music and Musical Interactions, Composition Cursus, IRCAM, Paris, France
2002 Invited lecture at Rensselaer Polytechnic Institute, Troy, NY, USA
2001 Lecture 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

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

- 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, Dec. 14 2006

Radio

- 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 DEMONSTRATIONS (related to research projects, selected)

MO Modular Musical Objects

Interlude Consortium

- 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

PUBLICATIONS

Peer-Reviewed Journal Papers (38)

1. A. Tajadura-Jiménez, N. Bianchi-Berthouze, E. Furfaro F. Bevilacqua, Sonification of Surface Tapping Changes Behavior, Surface Perception, and Emotion, *IEEE MultiMedia*, vol. 22, pp. 48–57, 2015.
2. B. Caramiaux, N. Montecchio, A. Tanaka, F. Bevilacqua, Adaptive Gesture Recognition with Variations Estimation for Interactive Systems, *ACM Transactions on Interactive Intelligent Systems*, *in press*.
3. B. Caramiaux, J. Françoise, N. Schnell, F. Bevilacqua, Mapping Through Listening, *Computer Music Journal*, 38(3), 34–48, 2014
4. 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*, *in press*.
5. 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
6. 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
7. E. O. Boyer, B. M. Babayan, F. Bevilacqua, M. Noisternig, O. Warusfel, A. Roby-Brami, S. Hanne-ton, 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
8. 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
9. F. Bevilacqua, F. Baschet, S. Lemouton, The Augmented String Quartet: Experiments and Gesture Following, *Journal of New Music Research*, 41 (1), 103-119, 2012
10. B. Caramiaux, M.M. Wanderley, F. Bevilacqua, Segmenting and Parsing Instrumentalists' Gestures, *Journal of New Music Research*, 41 (1), 13-29, 2012
11. 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
12. 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
13. 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
14. J. Bloit, N. Rasamimanana, F. Bevilacqua, Modeling and segmentation of audio descriptor profiles with Segmental Models, *Pattern Recognition Letters*, 31 (12), 1507–1513, 2010
15. N. Rasamimanana, F. Kaiser, F. Bevilacqua, Perspectives on gesture-sound relationships informed from acoustic instrument studies, *Organised Sound*, 14 (2), 208–216, 2009
16. 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.
17. S. deLahunta and F. Bevilacqua, Sharing Descriptions of Movement, *International Journal of Performance and Digital Media*, 3 (1), 3–16, 2007.

18. 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.
19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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.
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