# Anna Xambó

BA, MA, MSc, PhD

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### **Current Position**

Postdoctoral Fellow, Center for Music Technology | Digital Media Program, Georgia Institute of Technology (Georgia Tech)

### Areas of Interest

Design of digital musical instruments (DMIs) • Real-time interactive systems for music performance • Human-computer interaction • Interaction design • Tangible, physical  $\dot{\mathcal{C}}$  social computing • Computer-supported collaborative, participatory  $\dot{\mathcal{C}}$  improvisation music • Live coding • Real-time music information retrieval and machine learning • Multichannel spatialization • Algorithmic composition  $\dot{\mathcal{C}}$  randomized algorithms • Immersive sound experiences • Women in music tech • Arts  $\dot{\mathcal{C}}$  social sciences research methods • STEAM education • Data visualization • Creative programming

### Education

- <sup>2015</sup> PHD, The Open University (OU), UK & DRA., Universitat Pompeu Fabra (UPF), Spain. Major: Music computing & HCI.
  - Dissertation: Tabletop Tangible Interfaces for Music Performance: Design and Evaluation.
- MSc in Information, Communication and Audiovisual Media Technologies, UPF, Spain. Major: Music computing & HCI.
  - Dissertation: Interfaces for Sketching Musical Compositions.
- 1999 MASTER in Video, Animation and Multimedia Design, Media Art Institute Fak d'Art, Spain.
- 1996 BA, MA in Social and Cultural Anthropology, Universitat de Barcelona (UB), Spain.

#### Dissertation

- Title **Xambó**, **A.** (2015). Tabletop Tangible Interfaces for Music Performance: Design and Evaluation.
- Advisors Dr Robin Laney, Mr Chris Dobbyn and Prof Sergi Jordà.
- Examiners Prof Eduardo Reck Miranda and Dr Janet van der Linden.

Website http://oro.open.ac.uk/42473/

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### **Music Education**

#### CLASSICAL TRAINING

1983–1987 PIANO, Conservatori Superior de Música del Liceu, Barcelona.

1982–1988 Music Theory & Solfege, Conservatori Superior de Música del Liceu, Barcelona.

#### Workshops

- TALLER COMPOSICIÓN ACUSMÁTICA (Acousmatic composition workshop). Beatriz Ferreyra. Barcelona.
- 2012 SÍNTESI NO ESTÀNDARD: TÈCNIQUES, ESTÈTIQUES, EXTENSIONS (Non-standard synthesis: techniques, aesthetics, extensions). Luc Döbereiner. Barcelona.
- Taller construeix el teu propi sintetitzador (Build your own synthesizer workshop). Tom Bugs. Barcelona.
- 2008 SMC SUMMER SCHOOL. Xavier Serra, Marc Leman, Benjamin Knapp, and the Casa Paganini Info-Mus Lab. Genoa, Italy.
- 2006 EL MÓN COM A INSTRUMENT (The world as an instrument). Francisco López. Barcelona.
- 1998 IMPROVITZACIÓ MÈTODE COBRA (Cobra improvisation method). Orquestra del Caos. Barcelona.

## **Employment**

o<sub>7/2015</sub>-present Postdoctoral Fellow. Center for Music Technology | Digital Media Program, Georgia Tech.

08/2013-09/2014 RESEARCH FELLOW. London Knowledge Lab, UCL Institute of Education. London.

 $_{02/2004-06/2010}$  Co-Founder, Project Manager, Web Designer & Web Developer. Nodular Soft. Barcelona.

01/2008-07/2009 WEB DESIGNER & WEB DEVELOPER PROJECT OFFICER. Music Technology Group, UPF. Barcelona.

11/2007-06/2009 WEB DESIGNER & WEB DEVELOPER PROJECT OFFICER. Uaalah!!. Barcelona.

08/2005-09/2006 Web Designer & Motion Graphic Designer. CCRTVi | TV3 Interactiva. Sant Just Desvern,

05/2001-08/2002 Web Designer & Motion Graphic Designer. TerraNetworks | UranoFilms. Barcelona.

04/2000-05/2001 WEB DESIGNER & MOTION GRAPHIC DESIGNER. MediaPark | ParkNet, Barcelona.

### Honors & Awards

#### Research Honors & Awards

10/2010-07/2013 FULLY-FUNDED FULL-TIME OU PHD SCHOLARSHIP. The Open University, Milton Keynes, UK. 03/2010-06/2010 FULLY-FUNDED OU VISITING RESEARCH STUDENTSHIP. The Open University, Milton Keynes, UK.

ARTISTIC GRANTS, HONORS & AWARDS

05/2004 FIRST PRIZE AWARD MINIMA FESTIVAL. Gandía, Spain.

Category: Experimental Video. Project: "Cosmogonias".

Role: Creator & Director.

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### Grants & Funding

#### PRINCIPAL INVESTIGATOR

TEACHING INNOVATION PROJECT GRANT

Funding body: Fundació Caixa de Sabadell.

Project: "Crossmedia infantil: Estudio sobre las nuevas tecnologías y la comunicación audiovisual en la escuela infantil y primaria (Crossmedia for Children: New Technologies and Audiovisual

Communication in Primary Education)".

Collaborators: Eladi Martos (Co-PI), UB.

Total Dollar Amount: \$3,300 Candidate's Share: 50% (\$1,650)

#### Collaborator

09/2016-08/2020 ADVANCING INFORMAL STEM LEARNING GRANT

Funding body: National Science Foundation (NSF).

Project: "Collaborative Research: Mixing Learning Experiences for Computer Programming Across Museums, Classrooms, and the Home Using Computational Music". Award Number: 1612644.

Organization: Georgia Tech Research Corporation.

Role: Postdoctoral Fellow and Co-Writer of the grant proposal.

Collaborators: Brian Magerko (PI), Jason Freeman (Co-PI), Mike Horn (Co-PI).

Total Dollar Amount: \$2,517,690.00

#### FUNDRAISER

05/2016-present Women in Music Tech

Role: Co-Founder & Co-Chair of the organization, Co-Organizer of the event.

Total Fundraised Dollar Amount: \$11,450

Funding body: School of Music, Georgia Tech.

Total Dollar Amount: \$2,500

08/2016-11/2016 Fall 2016 Concert Event

Funding body: College of Design, Georgia Tech.

Total Dollar Amount: \$2,000

Funding body: ADVANCE program, Georgia Tech.

Total Dollar Amount: \$1,000

Funding body: Women's Resource Center, Georgia Tech.

Total Dollar Amount: \$250

Funding body: School of Music, Georgia Tech.

Total Dollar Amount: \$2,400

Funding body: College of Design Council Diversity, Georgia Tech.

Total Dollar Amount: \$1,500

Funding body: ADVANCE Program, Georgia Tech.

Total Dollar Amount: \$1,000

Funding body: Women's Resource Center, Georgia Tech.

Total Dollar Amount: \$500

Funding body: Digital Media Program, School of Literature, Media, and Communication, Georgia

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Total Dollar Amount: \$300

Creator | Director

09/2001-08/2002 AUDIOVISUAL PRODUCTION GRANT

Funding body: Departament de Cultura de la Generalitat de Catalunya (Department of Culture of

Catalan Government). Project: "Transdata Pr.".

Role: Creator, Video Editor & Director.

Collaborators: Gerard Roma (music), Oscar Abril Ascaso (essay).

Total Dollar Amount: \$3,300 Candidate's Share: 50% (\$1,650) 09/1998-08/1999 AUDIOVISUAL PRODUCTION GRANT

Funding body: Departament de Cultura de la Generalitat de Catalunya (Department of Culture of

Catalan Government). Project: "Mitösömä".

Role: Creator, Animation Editor  $\mathring{\sigma}$  Director. Collaborators: Gerard Roma (music). Grant Amount: 3,000€ (\$3,335) Candidate's Share: 50% (\$1,650)

### Research Profiles

- Scholar Google
- Open Research Online
- · Academia.edu
- ResearchGate

### **Publications**

Воокѕ

2004 Xambó, A. (2004). Herramientas De Diseño Digital/Digital Design Tools. Madrid: Anaya-Multimedia. ISBN 8441516979.

PEER-REVIEWED BOOK CHAPTERS

- 2016 Xambó, A. (forthcoming), "Embodied music interaction: creative design synergies between music performance and HCI". In Price, S. and Broadhurst, S. eds. Digital Bodies: Creativity and Technology in the Arts and Humanities. Palgrave Macmillan, London.
- Xambó, A., Laney, R., Dobbyn, C. and Jordà, S. (2013). "Video analysis for evaluating music interaction: musical tabletops". In Holland, S., Wilkie, K., Mulholland, P. and Seago, A. eds. Music and Human-Computer Interaction. Springer, London. pp. 241-258. ISBN 9781447129905.

**JOURNAL ARTICLES** 

2016c Xambó, A., Hornecker, E., Marshall, P., Jordà, S., Dobbyn, C. and Laney, R. (2016). "Exploring social interaction with a tangible music interface". Interacting with Computers.

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- Jewitt, C., Price, S., **Xambó**, **A.** (2016). "Conceptualising and researching the body in digital contexts: towards new methodological conversations across the arts and social sciences". *Qualitative Research*.
- Jewitt, C., **Xambó**, **A.** and Price, S. (2016). "Exploring methodological innovation in the social sciences: the body in digital environments and the arts". *International Journal of Social Research Methodology*.
- Xambó, A., Hornecker, E., Marshall, P., Jordà, S., Dobbyn, C. and Laney, R. (2013). "Let's jam the Reactable: peer learning during musical improvisation with a tabletop tangible interface". *ACM Transactions on Computer-Human Interaction*, 20(6), pp. 36:1–36:34.
- Bogdanov, D., Haro, M., Fuhrmann, F., **Xambó, A.**, Gómez, E. and Herrera, P. (2013). "Semantic audio content-based music recommendation and visualization based on user preference examples". *Information Processing & Management*, 49(1), pp. 13–33.

#### PEER-REVIEWED CONFERENCE PAPERS

- **Xambó, A.**, Shah, P., Roma, G., Freeman, J., Magerko, B. (accepted) "Turn-taking and chatting in collaborative music live coding". Audio Mostly 2017 conference.
- **Xambó, A.**, Shah, P., Roma, G., Freeman, J., Magerko, B. (accepted) "Turn-taking and chatting in collaborative music live coding". Audio Mostly 2017 conference.
- Roma, G., **Xambó, A.**, Freeman, J. (accepted) "Handwaving: gesture recognition for participatory mobile music". Audio Mostly 2017 conference.
- Roma, G., **Xambó, A.**, Freeman, J. (accepted) "Loop-aware audio recording for the web". Web Audio Conference 2017.
- Xambó, A., Drozda, B., Weisling, A., Magerko, B., Huet, M., Gasque, T., Freeman, J. (2017) Experience and ownership with a tangible computational music installation for informal learning. In *Proceedings of the Tangible, Embedded, and Embodied Interaction Conference (TEI '17)*. Yokohama, Japan. pp. 351–360.
- Freeman, J., Magerko, B., Edwards, D., Miller, M., Moore, R., **Xambó, A.** (2016). "Using EarSketch to broaden participation in computing and music". In *Proceedings of the 13th Sound and Music Computing Conference (SMC 2016)*. Hamburg, Germany. pp. 156–163.
- Xambó, A., Freeman, J., Magerko, B., Shah, P. (2016). "Challenges and new directions for collaborative live coding in the classroom". In *Proceedings of the International Conference of Live Interfaces (ICLI 2016)*. Brighton, UK.
- Xambó, A., Roma, G., Laney, R., Dobbyn, C. and Jordà, S. (2014). "SoundXY4: supporting tabletop collaboration and awareness with ambisonics spatialisation". In *Proceedings of the International Conference on New Interfaces for Musical Expression 2014 (NIME '14)*. London. pp. 249–252.
- Bogdanov, D., Haro, M., Fuhrmann, F., **Xambó, A.**, Gómez, E. and Herrera, P. (2013). "A content-based system for music recommendation and visualization of user preferences working on semantic notions". In *IEEE 9th International Workshop on Content-Based Multimedia Indexing (CBMI '13)*. Madrid. pp. 249–252.
- Roma, G., **Xambó**, **A.**, Herrera, P. and Laney, R. (2012). "Factors in human recognition of timbre lexicons generated by data clustering". In *Proceedings of the 9th Sound and Music Computing Conference (SMC 2012)*. Copenhagen, Denmark. pp. 23–30.
- Xambó, A., Laney, R., Dobbyn, C. and Jordà, S. (2011). "Multi-touch interaction principles for collaborative real-time music activities: towards a pattern language". In *Proceedings of the International Computer Music Conference (ICMC '11)*. Huddersfield, UK. pp. 403–406.
- Xambó, A., Laney, R. and Dobbyn, C. (2011). "TOUCHtr4ck: democratic collaborative music". In *Proceedings of the Tangible, Embedded, and Embodied Interaction Conference (TEI '11)*. Funchal, Madeira. pp. 309–312.
- Milne, A. J., **Xambó, A.**, Laney, R., Sharp, D. B., Prechtl, A. and Holland, S. (2011). "Hex Player a virtual musical controller". In *Proceedings of the International Conference on New Interfaces for*

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- Musical Expression (NIME '11). Oslo, Norway. pp. 244-247.
- Laney, R., Dobbyn, C., **Xambó, A.**, Schirosa, M., Miell, D., Littleton, K. and Dalton, N. (2010). "Issues and techniques for collaborative music making on multi-touch surfaces". In *Proceedings of the 7th Sound and Music Computing Conference (SMC 2010)*. Barcelona. pp. 146–153.
- <sup>2010a</sup> Haro, M., **Xambó, A.**, Fuhrmann, F., Bogdanov, D., Gómez, E. and Herrera, P. (2010). "The Musical Avatar: a visualization of musical preferences by means of audio content description". In *Proceedings of the 5th Audio Mostly Conference (AM '10)*. Piteå, Sweden.
- <sup>2008</sup> Roma, G. and **Xambó**, **A.** (2008). "A tabletop waveform editor for live performance". In *Proceedings* of the International Conference on New Interfaces for Musical Expression (NIME '08). Genoa, Italy.

#### PEER-REVIEWED ABSTRACTS WITH PROCEEDINGS

- <sup>2017</sup> Xambó, A., Roma, G. (accepted). Participatory action painting with my phone. Web Audio Conference 2017.
- Tsuchiya, T., Xambó, A., Freeman, J. (2016). "Adapting DAW-driven musical language to live coding: a case study in EarSketch". In Late-Breaking Demo of the Second International Conference on Live Coding (ICLC '16). Hamilton, Canada.
- Xambó, A., Lerch, A., Freeman, J. (2016). "Learning to code through MIR". In Extended abstracts for the Late-Breaking Demo Session of the 17th International Society for Music Information Retrieval Conference (ISMIR 2016). New York.
- <sup>2016a</sup> Roma, G., **Xambó**, **A.**, Freeman, J. (2016). "Do the Buzzer Shake". In *International Conference of Live Interfaces (ICLI 2016)*. Brighton, UK.
- Freeman, J., Magerko, B., Edwards, D., Moore, R., McKlin, T., **Xambó, A.** (2015). "EarSketch: a STEAM approach to broadening participation in computer science principles". In *Proceedings of the IEEE Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT '15)*. Charlotte, NC. pp. 109–110.
- Xambó, A., Jewitt, C., and Price, S. (2014). "Towards an integrated methodological framework for understanding embodiment in HCI". In *Proceedings of the Extended Abstracts on Human Factors in Computing Systems (CHI '14)*. Toronto. pp. 1411–1416.

#### Position & Workshop Papers

- Xambó, A., Roma, G., Shah, P., Freeman, J., Magerko, B. (accepted) "Computational challenges of co-creation in collaborative music live coding: an outline". 2017 Co-Creation Workshop at the International Conference on Computational Creativity.
- Xambó, A.; Laney, R.; Dobbyn, C. and Jordà, S. (September 11, 2012). "Towards a taxonomy for video analysis on collaborative musical tabletops". In BCS HCI 2012 Workshop on video analysis techniques for HCI. Birmingham, UK.
- Xambó, A.; Laney, R.; Dobbyn, C. and Jordà, S. (July 4, 2011). "Collaborative music interaction on tabletops: an HCI approach". In *BCS HCI 2011 Workshop on When Words Fail: What can Music Interaction tell us about HCI?*. Newcastle Upon Tyne.

#### REPORTS & WORKING PAPERS

- Xambó, A. (2008). Interfaces for Sketching Musical Compositions. Unpublished master's thesis.
- Xambó, A., Martos, E. (2004). Crossmedia Infantil: Estudi sobre les noves tecnologies i la comunicació audiovisual a l'escola infantil i primària (Report of new technologies and audiovisual communication in the primary education). Unpublished report. Supported by Fundació Caixa de Sabadell. In collaboration with UB.

### Talks & Oral Presentations

#### EXTERNAL

- ORAL PRESENTER. (July 2, 2016). Challenges and new directions for collaborative live coding in the classroom. *ICLI 2016*. Brighton, UK.
- <sup>2016a</sup> Keynote Speaker. (April 22, 2016). Anna Xambó and Liz Dobson in conversation. Women in Sound Women on Sound 2016: Educating girls in sound at University of Lancaster. Lancaster, UK.
- LIGHTNING TALK SPEAKER. (August 14, 2015). EarSketch: a STEAM approach to broadening participation in computer science principles. *RESPECT 2015*. Charlotte, NC. USA.
- ORAL PRESENTER. (July 1, 2014). SoundXY4: Supporting tabletop collaboration and awareness with ambisonics spatialisation. *NIME '14*. London.
- ORAL PRESENTER. (April 30, 2014). Let's jam the Reactable: Peer learning during musical improvisation with a tabletop tangible interface. *CHI* '14. Toronto, ON, Canada.
- <sup>2013</sup> ORAL PRESENTER. (November 11, 2013). Tabletop tangible interfaces for music performance and implications for tabletop research. *School of Computing*, University of Kent. Kent, UK.
- ORAL PRESENTER. (August 2, 2011). Multi-touch interaction principles for collaborative real-time music activities: towards a pattern language. *ICMC '11*. Huddersfield, UK.
- ORAL PRESENTER. (July 4, 2011). Collaborative music interaction on tabletops: An HCI approach. BCS HCI 2011 Workshop on When Words Fail: What can Music Interaction tell us about HCI?. New-castle Upon Tyne, UK.
- <sup>2010</sup> ORAL PRESENTER. (July 23, 2010). Issues and techniques for collaborative music making on multitouch surfaces. *SMC* '10. Barcelona.
- <sup>2008c</sup> Panel Member together with Alsina, A., Ferrete, J. and Roma, G. (October 31, 2008). Freesound, Sons de Barcelona y Freesound Radio: Proyectos colaborativos alrededor del sonido. *IV Cicle de Converses d'Antropologia Sonora*, Institució Milá i Fontanals (CSIC). Barcelona.
- Panel Member together with Alsina, A., Ferrete, J. and Roma, G. (2008). Freesound.org, Freesound Radio i Sons de Barcelona. *Facultat de Belles Arts (Faculty of Fine Arts)*, Universitat de Barcelona. Barcelona.
- PANEL MEMBER together with Alsina, A., de Jong, B., Loscos, A. and Roma, G. (September 27, 2008). Influencia de la tecnología en la evolución de la música y la industria. *NetAudio*, CCCB. Barcelona. [video]
- ORAL PRESENTER together with Roma, G. (September 20, 2007). A sound editor with a tangible interface. *SCSymposium*(2007), DCM. The Hague, The Netherlands.

### Own Institution

- Panel Member together with Ikkache, L. (May 4, 2017). Women in Music Tech 2016–2017. Oral presentation and discussion. *Georgia Tech Center for Music Technology (GTCMT)*, Geogia Tech. Atlanta, GA, USA.
- LIGHTNING TALK SPEAKER. (November 2, 2016). Tangible user interfaces and tabletops. *First Annual Women and Music Tech Concert and Reception*, The Garage. Atlanta, GA. USA.
- <sup>2016c</sup> PANEL MEMBER together with Ikkache, L. and Jackson, D. (May 5, 2016). Women in Sound. Oral presentation and discussion. *Georgia Tech Center for Music Technology (GTCMT)*, Geogia Tech. Atlanta, GA, USA.
- ORAL PRESENTER. (February 25, 2016). Algorithmic composition: my personal journey. Oral presentation as a guest speaker in Jason Freeman's *Computer Music Composition* class. GTCMT. Atlanta, GA, USA.
- ORAL PRESENTER. (January 26, 2016). EarSketch: computational music remixing for all. Oral presentation as a guest speaker in Barbara Ericson's *Educational Technology* class. College of Computing, Georgia Tech. Atlanta, GA, USA.

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- ORAL PRESENTER. (September 3, 2015). Musical tabletops: challenges and opportunities for computersupported collaborative music and HCI. *College of Architecture Research Forum*, Georgia Tech. Atlanta, GA, USA.
- ORAL PRESENTER. (August 27, 2015). Musical tabletops: challenges and opportunities for computersupported collaborative music and HCI. *GVU Center Brown Bag Seminar Series*, Georgia Tech. Atlanta, GA, USA. [video]
- ORAL PRESENTER. (August 24, 2015). Musical tabletops: challenges and opportunities for computersupported collaborative music and HCI. *GTCMT Seminar Series*, Georgia Tech. Atlanta, GA, USA.
- ORAL PRESENTER. (April 9, 2014). Let's jam the Reactable: Peer learning during musical improvisation with a tabletop tangible interface. *London Knowledge Lab.* London.
- ORAL PRESENTER. (June 2, 2013). Tabletop groupware for music performance: Design and evaluation. *CRC PhD Student Conference* 2013, OU. Milton Keynes, UK.
- ORAL PRESENTER. (June 12, 2012). Collaboration on interactive tabletops for music performance: An exploratory study. *CRC PhD Student Conference 2012*, OU. Milton Keynes, UK.
- ORAL PRESENTER. (June 16, 2011). Tabletop groupware for music performance: Design and evaluation. *CRC PhD Student Conference* 2011, OU. Milton Keynes, UK.
- ORAL PRESENTER. (May 17, 2011). Tabletop groupware for music performance: Design and evaluation. 2011 Doctoral Workshops Conference, OU. Milton Keynes, UK.
- ORAL PRESENTER. (June 8, 2010). Issues and techniques for collaborative music making on multitouch surfaces. *CRC PhD Student Conference 2010*, OU. Milton Keynes, UK.
- ORAL PRESENTER. (May, 2010). Issues and techniques for collaborative music making on multitouch surfaces. *Music Research Day*, Music Research Studio, OU. Milton Keynes, UK.

### Poster Presentations, Demos & Workshops

#### Poster Presentations & Demos

- Poster & Demo Presenter. (March 21, 2017). Experience and ownership with a tangible computational music installation for informal learning. *TEI '17*. Yokohama, Japan.
- POSTER & DEMO PRESENTER. (August 11, 2016). Learning to code through MIR. Late-Breaking Demo Session of ISMIR 2016. New York.
- POSTER & DEMO PRESENTER together with Roma, G. (July 2, 2016). Do the Buzzer Shake. *ICLI 2016*. Brighton, UK.
- POSTER & DEMO PRESENTER together with McKlin, T. (August 14, 2015). EarSketch: a STEAM approach to broadening participation in computer science principles. *RESPECT 2015*. Charlotte, NC. USA.
- POSTER PRESENTER together with Price, S. (April 29, 2014). Towards an integrated methodological framework for understanding embodiment in HCI. *CHI* '14. Toronto, ON. [video]
- Demo Presenter. (January 10, 2012). Tangible Additive Sound Synthesis (TASS). Welcome to the French Embassy, OU. Milton Keynes, UK.
- Poster Presenter. (June 17, 2011). Designing and evaluating interactive systems: Musical tabletops for collective music performance. *CRC PhD Student Conference 2011*, OU. Milton Keynes, UK.
- 2011с Poster & Demo Presenter together with Milne, A. J. (May 30, 2011). Hex Player a virtual musical controller. *NIME* '11. Oslo, Norway.
- Poster Presenter. (March 8, 2011). Designing and evaluating interactive systems: Musical tabletops for collective music performance. *The Open University Poster Competition 2011*. Milton Keynes, UK.
- <sup>2011a</sup> Poster Presenter. (January 25, 2011) TOUCHtr4ck: democratic collaborative music. *TEI '11*. Funchal, Madeira.

- POSTER PRESENTER. (June 8, 2010). Issues and techniques for collaborative music making on multitouch surfaces. *CRC PhD Student Conference 2010*, OU. Milton Keynes, UK.
- POSTER PRESENTER. (June 9-11, 2010). Interfaces for Sketching Musical Compositions. SMC Summer School 2008. Genoa, Italy.
- <sup>2008a</sup> Poster Presenter together with Roma, G. (June 6, 2008) A tabletop waveform editor for live performance. *NIME '08*. Genoa, Italy.

#### Workshops

- <sup>2013</sup> **Xambó, A.** (May 2, 2013). Introduction to SuperCollider. *Music Computing Meeting*, OU. Milton Keynes, UK.
- Xambó, A.; Roma, G. and Bovermann, T. (April 15, 2012). Tangible musical interfaces with Super-Collider. *SuperCollider Symposium 2012*, Goldsmiths, University of London. London.

#### **WEBINARS**

Xambó, A. (October 28, 2016). Debugging with EarSketch. GTCMT, Georgia Tech, Atlanta, GA, USA

## Discography

#### Solo Albums

- peterMann. (2013). On the Go [promo CD & FLAC/MP3 files]. Barcelona: Carpal Tunnel.
- peterMann. (2011). init [promo CD & FLAC/MP3 files]. Barcelona: Carpal Tunnel.

#### BAND ALBUMS

- 1996 La Más Fina. (1996). Zande Phondex [CD]. Barcelona: Apache Productions.
- La Más Fina. (1994). Como quien dice la hoja iberia extrafina [Cassette]. Barcelona: Self-released.
- 1992 Sosa's Cáustica. (1992). Paraponera Clavata [Cassette]. Barcelona: Murmur Town.

#### PARTICIPATION IN COMPILATIONS

- peterMann. (2016). Go wild y'all (1 min). in *Microtopies 2016* [MP3 files]. Barcelona: Gracia Territori Sonor.
- peterMann. (2015). ldnsktcho1 (1 min). In *Microtopies 2015* [MP3 files]. Barcelona: Gracia Territori Sonor
- 2010 peterMann. (2010). init11 (3 min 29 sec). In Electronic music from Catalonia 2010 [CD]. Barcelona: Catalan! Arts / Sonar, Barcelona.

#### Broadcasting

- 2013f peterMann's ogo2. (July 28, 2013). BiP\_HOp Generation on Radio Grenouille.
- 2013e peterMann's ogo1, ogo5, ogo7 & ogo9. (June 23, 2013). Framework radio #426.
- 2013d peterMann's ogo1. (March 28, 2013). Rare Frequency on WZBC 90.3 FM Newton Boston College Radio.
- $_{\rm 2013C}~$  peter Mann's ogo<br/>1 & og<br/>10. (March 2, 2013). Onda Sonora.
- 2013b peterMann's selection of On The Go's tracks. (February 3, 2013). RNE Atmósfera.
- peterMann's ogo2. (February 2, 2013). Störung Radio 127 on ScannerFM.
- 2010b peterMann's init 10, init 11 & init 12. (December 18, 2010). Onda Sonora.
- 2010a peterMann's init 2. (April 12, 2010). Sismógrafo.

### Selected Performances

### Solo Performances

- peterMann. (January 8, 2017). Live coding session. *Noiselets: A Noise Music Microfestival*. Freedonia, Barcelona, Spain.
- Zo16b Xambó, A. (April 22, 2016). Live coding with EarSketch. Women in Sound Women on Sound 2016: Educating girls in sound. Jack Hylton Music Room, University of Lancaster. Lancaster, UK.
- peterMann. (April 22, 2016). Live. *Women in Sound Women on Sound 2016: Educating girls in sound.*Jack Hylton Music Room, University of Lancaster. Lancaster, UK.
- <sup>2013</sup> Xambó, A. (October 4, 2013). Live coding session. *Perspectives on Multichannel Live Coding*. PHONOS. Sala Polivalent, UPF. Barcelona, Spain.
- 2012 peterMann. (September 20, 2012). Live. Crispy Crunchy Creaky. Niu. Barcelona, Spain.
- peterMann. (June 10, 2006). Live. 5a Mostra Sonora i Visual | Convent Sant Agustí. Barcelona, Spain.

#### Collaborative Performances

- Brown, N., Chudy, M., Papadomanolaki, M., Wilkie, S., Pase, T., Stolfi, A., Schroeder, F., Xambó, A., Ikkache, L., Freeman, J., Ganesh, S., Kerure, A., Narang, J., Wang, S. (accepted). Transmusicking I. Audio Mostly 2017.
- <sup>2017c</sup> Xambó, A. Roma, G. (accepted). Participatory action painting with my phone. Web Audio Conference 2017.
- 2017 Anna Weisling and Anna Xambó. (May 16, 2017). Beacon. NIME. Stengade. Copenhagen, Denmark.
- <sup>2017</sup> Anna Weisling and Anna Xambó. (February 11, 2017). Beacon. *Root Signals Festival*. Georgia Southern University. Statesboro, Georgia, United States.
- <sup>2012</sup> pulso (Gerard Roma and Anna Xambó). (March 15, 2012). Live coding session. *Live Coding Sessions*. Niu. Barcelona, Spain.
- pulso (Gerard Roma and Anna Xambó). (May 29, 2004). Live. Minima Festival. Gandía, Spain.
- b4ng (Gerard Roma, Celia Brugos, Clarens, Anna Xambó). (June 13, 2002). Live. *Sonar Festival*. Barcelona, Spain.

#### Other Creative Products

#### Awarded Music Hacks

2014 crowdj. Music Hack Day. Barcelona, Spain.

Prize: Rdio prize.

Role: Concept, part of the implementation and user interface design.

Collaborator: Gerard Roma.

2012b Soundscape Turntablism. Music Hack Day. Barcelona, Spain.

Prize: Reactable prize, Zvooq prize.

Role: Concept, part of the implementation and tangible user interface design.

Collaborator: Gerard Roma.

2012a Soundscape DJ. Music Tech Fest. London, UK.

Prize: Warp Records prize.

Role: Concept, part of the implementation and tangible user interface design.

Collaborator: Gerard Roma.

Code

MIRLC. (2016–2017). Retrieved March 30 2017, from https://github.com/axambo/MIRLC Role: Concept and implementation.

Beacon. (2017). Retrieved March 30 2017, from https://github.com/axambo/beacon Role: Concept and implementation of the audio engine.

Algonoise. (2016). Retrieved October 18 2016, from https://github.com/axambo/algonoise Role: Concept and implementation.

SoundXY4: The Art of Noise. (2014). Retrieved October 18 2016, from https://github.com/axambo/soundxy4 Role: Concept, implementation and tangible user interface design.

SoundXY. (2012). Retrieved October 18 2016, from https://github.com/axambo/soundxy2 Role: Concept, implementation and tangible user interface design.

#### VIDEO CREATIONS & ANIMATION FILMS

2003 Xambó, A. (2003). Cosmogonias (3 min). Spain. Video creation | Animation film.

2002b Xambó, A. (2002). b.scope (3 min). Spain. Video creation.

2002a Xambó, A. (2002). Transdata Pr. (5 min). Spain. Video creation.

2000 Xambó, A. (2000). clubsfera (3 min). Spain. Video creation | Animation film.

1999 Xambó, A. (1999). Mitösöma (10 min). Spain. Video creation | Animation film.

1998c Xambó, A. (1998). Lufthansa (3 min). Spain. Videoclip for La Más Fina.

1998b Xambó, A. (1998). Neila (2 min). Spain. Video creation.

1998a Xambó, A. (1998). Sueños (1 min). Spain. Video creation | Animation film.

#### Installations & Visuals

09/2002 I love Japan, Circuit Festival, Barcelona.

Role: Visuals.

Collaborators: Urtzi Grau (director), Emma Dünner, Jorge Meneses, Ana Otero.

03/2002-08/2002 Astoria (cinema & restaurant), Barcelona.

Role: Co-filming and visuals.

Collaborators: Babylon Cannes (concept).

09/2001 Eme3density, Second Architectural Market, Centre de Cultura Contemporània de Barcelona (CCCB),

Barcelona.

Role: Visuals & Flash programming.

Collaborators: Urtzi Grau (curator), Ana Otero (artistic director).

### Teaching

### Undergraduate Courses

02/2004-06/2004 Centre de la Imatge i la Technologia Multimèdia, Universitat Politècnica de Catalunya, Terrassa,

Barcelona.

Course: *Experimental Motion Graphics* (45 h). # Students: ∼15.

Role: Co-creation of syllabus, creation of content, instruction and assessment.

10/2003-02/2004 BAU Escola de Disseny, Universitat de Vic, Barcelona.

Course: Crossmedia (45 h). # Students:  $\sim$ 15.

Role: Co-creation of syllabus, creation of content, instruction and assessment.

11/2003-06/2004 Media Art Institute Fak d'Art, Barcelona.

Course: *Digital Compositing with Adobe AfterEffects* (45 h). # Students: ∼10.

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Role: Creation of syllabus, creation of content, instruction and assessment.

Course: *Photography in Motion* (45 h). # Students:  $\sim$ 10.

Role: Creation of syllabus, creation of content, instruction and assessment.

Course: *Type in Motion* (45 h). # Students:  $\sim$ 10.

Role: Creation of syllabus, creation of content, instruction and assessment.

11/1999-06/2003 Media Art Institute Fak d'Art, Barcelona.

Course: *Computer Animation* (90 h). # Students:  $\sim$ 15.

Role: Creation of syllabus, creation of content, instruction and assessment.

#### Professional Courses

04/2004-05/2005

Crea Formación, Barcelona.

Course: *Usability* (12 h). # Students: ∼5.

Role: Instruction.

Course: *Internet Design Techniques* (12 h). # Students: ∼5.

Role: Instruction.

Course: Web Design with DreamWeaver (24 h). # Students:  $\sim$ 5.

Role: Instruction.

Course: *Multimedia Content with Adobe Flash* (16 h). # Students:  $\sim$ 5.

Role: Instruction.

Course: Flash Programming (20 h) # Students:  $\sim$ 5.

Role: Instruction.

Course: Theoretical Aspects in Graphic Design (12 h). # Students:  $\sim$ 5.

Role: Instruction.

Course: *Video Edition with Adobe Premiere* (60 h) # Students: 1. Role: Creation of syllabus, creation of content and instruction.

### Preschool & Primary School Courses

03/2004-06/2004

Escola Magòria, Barcelona.

Course: *Crossmedia infantil* (11 h). # Students (6−7 years old): ~8.

Role: Co-creation of syllabus, creation of content, instruction and assessment.

03/2004-05/2004

Escola Costa i Llobera, Barcelona.

Course: *Crossmedia infantil* (9 h). # Students (9−10 years old): ~15.

Role: Co-creation of syllabus, creation of content, instruction and assessment.

03/2004-05/2004

Escola Glòries, Barcelona.

Course: Crossmedia infantil (12 h). # Students (3−4 years old): ~8.

Role: Co-creation of syllabus, creation of content, instruction and assessment.

### Mentoring

09/2015-05/2016

Co-advisor of Marc Huet and Travis Gasque (master's students in Digital Media, School of Literature, Media, and Communication) and Anna Weisling (PhD student in Digital Media, School of LMC) for their graduate design project TuneTable. This work has been part of Brian Magerko's Digital Media studio course at Georgia Tech. From this work we have published at TEI '17 (see Peer-Reviewed Conference Papers) and we have informed a successful and competitive NSF-funded grant (Advancing Informal STEM Learning Grant).

09/2015-05/2017

Co-advisor of Pratik Shah (master student in Human-Centered Computing, School of Interactive Computing) with the research and design on adding collaborative features to EarSketch, an online platform for learning code by making music. This work has been part of the design and development of the NSF-funded project EarSketch, led by Jason Freeman. From this work we have

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published at ICLI '16 (see Peer-Reviewed Conference Papers) and we have submitted a second conference paper and are preparing a journal article.

### Additional Experience

#### CONCERTS CO-ORGANIZATION

- 2017 Noiselets: A Noise Music Microfestival. (January 8, 2017). Freedonia, Barcelona.
- <sup>2016c</sup> The First Annual Women in Music Tech: Concert and Reception. (November 2, 2016). The Garage. Atlanta, GA, USA.
- <sup>2016b</sup> Audience device participation. (April 5, 2016). *Web Audio Conference 2016*, Georgia Tech. Atlanta, GA, USA.
- <sup>2016a</sup> Live coding and the audiovisual web. (April 4, 2016). Web Audio Conference 2016, Georgia Tech. Atlanta, GA, USA.
- Perspectives on multichannel live coding. (October 4, 2013). PHONOS. Sala Polivalent, UPF. Barcelona.
- 2013a Live Coding Sessions II. (March 22, 2013). Niu. Barcelona.
- Live Coding Sessions. (March 15, 2012). Niu. Barcelona.

#### BLOGGING

women in Music Tech, the newsletter of the Women in Music Tech organization. Co-Creator and Co-Author.

09/2013-08/2014 MIDAS's Blog, the research blog of the MIDAS project. Co-Creator and Co-Author.

01/2010-12/2011 postWIMP, a blog on HCI and interaction design. Co-Creator and Co-Author.

03/2006-03/2009 streeTypes, a blog on typography in public spaces. Creator and Author.

#### ARTISTIC COLLECTIVE PROJECTS

2008-present Co-Founder of the experimental electronic music label Carpal Tunnel. Barcelona.

<sup>2002</sup> Co-Founder and Member of b<sub>4</sub>ng, a multidisciplinary collective in search of new forms of audiovisual communication. Barcelona.

1998-2000 Co-Founder and Member of the experimental video collective jesus13. Barcelona.

### **Professional Activities**

### Professional Organization Member

Association for Computing Machinery (ACM). International Computer Music Association (ICMA).

#### COMMITTEE MEMBER / CONFERENCE CHAIR

- PROGRAMME COMMITTEE MEMBER. Second Conference on Computer Simulation of Musical Creativity, Open University. Milton Keynes, UK.
- LOCAL COMMITTEE MEMBER. *International Conference on Computational Creativity 2017*, Georgia Tech. Atlanta, GA, USA.
- Со-Founder & Co-Chair. Women in Music Tech Committee, GTCMT, Georgia Tech. Atlanta, GA, USA.

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- MUSIC/ARTWORKS CO-CHAIR. Web Audio Conference 2016, Georgia Tech. Atlanta, GA, USA.
- SESSION CHAIR ("Laptop/Coding/NI"). ICMC '11. Huddersfield, UK.
- COMMITTEE MEMBER. CRC PhD Student Conference 2011, OU. Milton Keynes, UK.

#### Conference Reviewer

- ACM Creativity and Cognition (2017).
- ACM Designing Interactive Systems (2012, 2016). 2012-2016
  - 2017 ACM Innovation and Technology in Computer Science Education (2017).
- 2011–2016 ACM New Interfaces for Musical Expression (2011–2017).
- 2015-2017 ACM Special Interest Group on Computer-Human Interaction (2015-2017).
- 2012-2017 ACM Tangible, Embedded and Embodied Interaction (2012-2017).
  - Co-Creation Workshop at International Conference on Computational Creativity (2017). 2017
  - <sup>2017</sup> International Computer Music Conference ICMC Music (2017).
  - *IEEE Interactive Tabletops and Surfaces* (2013).
  - International Conference on Live Interfaces (2016). 2016
  - ISSTA International Festival and Conference on Sound in the Arts, Science and Technology (2016). 2016
  - Web Audio Conference (2016-2017). 2016

#### **JOURNAL REVIEWER**

- International Journal of Human-Computer Studies. Elsevier.
- Interacting with Computers. Oxford Journals.
- Qualitative Research. Sage Publications.

#### JURY MEMBER

MOOG Hackathon 2016, GTCMT, Georgia Tech. Atlanta, GA, USA.

#### Music Judge

- 2017 National Student Electronic Music Event 2017, Louisiana State University. Baton Rouge, LA, USA.
- EarSketch National Competition 2017, GTCMT, Georgia Tech. Atlanta, GA, USA.

#### Consultancies

08/2015-10/2015 Flux Project, Atlanta, GA, USA.

Consulting on the development of interactive audio components of an art project for Flux Night

Collaborators: Jason Freeman (coordinator), Gerard Roma.

#### Entrepreneurship

#### o5/2016-present

Women in Music Tech, Atlanta, GA, USA.

Co-Founder and Co-Chair of Women in Music Tech, the first student organization at GTCMT that looks into bringing more women into the program of music technology with actions on recruitment, external communication, internal communication, and creating a safe space.

02/2004-06/2010 *Nodular Soft*, Barcelona.

Co-Founder of a freelance studio focused on user-centric software and AV communication, development of community websites using several CMS, development of AV programs under specific needs, and usability consultancy.

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#### RESEARCH VISITS

University of Strathclyde, Glasgow, Scotland, UK.
University of Strathclyde, Glasgow, Scotland, UK.

 $_{04/2011-05/2011}$  UPF, Barcelona, Spain.

03/2010-06/2010 The Open University, Milton Keynes, UK.

### Skills

#### Languages

Catalan (native or bilingual proficiency), Spanish (native or bilingual proficiency), English (full professional proficiency), German (basic level), Italian (basic level), French (basic level).

#### COMPUTER SKILLS

Operating Systems: OS X, Windows and Linux desktop (Ubuntu).

Programming: Actionscript, Assembly (basic level), C, CSS, Java, JavaScript, jQuery, MySQL, PHP, Python, Web Audio, XML.

Scientific Apps: MATLAB, Octave, R, SPSS.

Version control systems: CVS, Git, Subversion.

Music Apps: Cubase, Live, Max/MSP, PureData, SuperCollider, wave editors (Audacity, Sound-Forge, WaveEditor).

Video analysis Apps: ELAN, VCode.

Other Apps: Graphics and multimedia authoring apps (AfterEffects, Blender, Dreamweaver, Final Cut Pro, Flash, Freehand, Illustrator, InDesign, Photoshop, Premiere, Processing, Combustion, 3DMax), LaTeX, MS Office suite. CMS (Drupal, WordPress). Jekyll.