

Lali Barrière, Barcelona (Catalonia).

lalibARRIERE.net

www-ma4.upc.edu/~lali

Musician and Mathematician, she combines her artistic activity with teaching Mathematics, creative programming and research.

As a Mathematician, she is a Professor at the Universitat Politècnica de Catalunya, where she conducts her research on the fields of graph theory, communication algorithms and combinatorial geometry. She is interested in music and visual arts as well, which led her to apply her mathematical knowledge to the creative use of programming. Besides Mathematics, she teaches Creative programming and Music and Mathematics. She also has collaborated in the Master on Sound Art of the Fine Arts School at the Universitat de Barcelona.

Music

Active in the scene of free improvisation in Barcelona. Works with acoustic and amplified objects, electronic devices, field recordings and programming, with a minimalistic approach. She also plays flute, cracklebox, guitaret, metallophone, keyboards.

Her current projects are: solo project, A=B, with Ferran Fages, blaast, with Alfredo Costa Monteiro, and ziz, with Eduard Márquez and Ferran fages. She also collaborates, or has collaborated, with other improvisers as Miguel Angel García, Tomás Gris, Xavier Lopez, Tom Soloveitzik, Dafne Vicente-Sandoval, Ruth Barberán, Tom Chant, Artur Vidal, Juan Matos Capote, Héctor Rey, Marta Sainz.

Festivals she participated in: Sónar (Barcelona, 2003), insolit music forum (L'Hospitalet, 2003), LEM (Barcelona, 2004 i 2010), bouesia (Deltebre, 2009), zarata fest (Bilbao, 2011 i 2012), festival audio tangente (Burgos, 2011), com a mínim (Barcelona, 2011), curtcircuit fest (Barcelona, 2012), personal-collective (Madrid, 2012), relay (Vitoria-Gasteiz, Madrid 2014). With Alfredo Costa Monteiro and Ruth Barberán, she organized the improvisers meeting bestiario (Barcelona, 2012).

Other activities:

- Performer: Filament, by Ferran Fages, with Ferran Fages, Dafne Vicente-Sandoval, and Angharad Davis. Première at Huddersfield Contemporary Music Festival 2015.
- Performer: cartridge music, by John Cage, (CASM, Barcelona 2012), in C, by Terry Riley (Festival Bouesia, Deltebre 2009).
- Composition: zona franca (2012).
- As a member of Ferran Fages Ensemble, programming in Pure Data and performer of radi d'or (2011).
- Member of the post-rock band Grus (2009 to 2012).
- Member of the experimental rock band Pad (2003 to 2009).

Creative programming

Since 2008 she is interested in creative applications of programming. Likes and uses Processing in her visual projects, a tool that also allows her to explore the use of Mathematics in creation and how artists can learn programming, as well as to approach creative work to engineers. She also use to program in Pure Data.

Currently, she is responsible for the Processing group at Hangar, where she teaches regular workshops

at the Open Thursdays. She has taught workshops and courses at: Fundació Ferran Sunyer i Balaguer, in the frame of DITMAE 2015, Fundación Telefónica (2015), as a parallel activity of the exhibit *Auditando la Creatividad*, by Ferran Adrià, Facultad de Bellas Artes, Universidad Complutense de Madrid (2014); LabMedia, Facultat de Belles Arts, Universitat de Barcelona (2013); Department of Continuous Education, TV3 (2012). She also has taught workshops in several independent cultural associations: *le freak* (Barcelona 2008), *circuit torçat* (Barcelona 2011), *taller tramuntana* (Barcelona 2012), *equipo para* (Santa Cruz de Tenerife 2012), *Hangar* (Barcelona 2014, 2015). She designed and taught, at the UPC, the course *Processing: programació d'imatges, animacions i interaccions* (2008 and 2011). She organized the meetings *ProcessingBCN* (Hangar, Barcelona, 2009), with Alba G. Corral, and *ProcessingInteract* (Hangar, Barcelona, 2010), with Oriol Aragonès.

Projects:

- Design of the commemorative Buff for the Mathematics meeting *Dissabte Transfronterer de les Matemàtiques 2015*.
- Visuals in Processing for *Blaast*, *A=B*, *Pad* and *festival de la raya* (2008 to 2011).
- Mathematical consulting for the windows geometry of a multitouch framework, as a collaborator of *Ping Pong Technologies SL* (2009).
- Prototyping *mimodek*, project by Marie Polakova for the media facade at *MediaLab-Prado*, in *Processing* (2010).
- Programming in *Pure Data* for the projects *Octofònic per a granotes i sinusoidals* (2010) and *Ferran Fages Ensemble* (2011).