

# REACHing SANTA BARBARA



IRCAM @ UCSB



Program Notes

June 1<sup>st</sup>, 2026

6 pm (PDT)

## Program

### **Five Elements (2025) 12mn**

Miklhail Malt, composition, AI-Agents Somax2 generative electronics  
Cássia Carrascoza Bomfim, Flute

### **Taideji (2024) 15mn**

Lara Morciano, Composition, Piano  
José-Miguel Fernandez, AI-Agents Somax2Collider, immersive  
electronics (spatialized)  
Thierry Miroglio, Percussions

### **Six spaces (2026) 12mn**

Miklhail Malt, composition, AI-Agents Somax2 generative electronics  
Thierry Miroglio, Percussions

### **REACHing Santa Barbara (2026) 20mn**

*the REACH Collective and invited musicians*

Miklhail Malt, AI-Agents Somax2 generative electronics  
José-Miguel Fernandez, AI-Agents Somax2Collider  
Cássia Carrascoza Bomfim, Flute  
Thierry Miroglio, Percussions  
Lara Morciano, composition, Piano  
Marco Fiorini, Electric Guitar

## **Concert Notes**

### **Five Elements**

Performances unfold as improvisations within a pre-structured poetic-musical narrative, incorporating excerpts of canonical works, original recordings, flute, percussion, voice, and environmental soundscapes. The video component includes two layers: one generated by AI, the other featuring Brazilian landscapes that evoke the five elements. The narrative bridges virtual and natural realms through imagery of Amazonian Indigenous peoples, the Rio Negro, the boto cor-de-rosa, and central Brazilian landscapes. The final section expands into AI-generated landscapes, merging reality with imaginative constructs. We employ a system developed by Guilherme Zanchetta using TouchDesigner software, specifically designed for audiovisual performance. This system enables real-time control over video transitions, responding dynamically to sensory stimuli. It avoids repetitive sequencing and enhances visual variation in accordance with the performer's actions. Collaborative exploration between Cassia Carrascoza Bomfim and Mikhail Malt.

### **Taideji**

In this piece, the collaboration between the performers is rooted in an exploration of the dynamic relationship between acoustic instruments and electronics, incorporating the interactive possibilities offered by Somax2. The sonic palette of the piano at times low, distorted, and percussive, at others bright and resonant, interacts with the rich colors of the percussion, shaping a musical

journey marked by strong contrasts and an ever-shifting energy, oscillating between density and rarefaction. On the electronic side, the two acoustic instruments are processed in real time through various techniques, while Somax2 establishes a sensitive and reactive connection between instrumental performance and generated sound material, enriching the dialogue between human and machine.

## **Six Spaces**

Six Spaces / Resonant Bodies is an semi-improvised work for symphonic bass drum, percussions and generative electronics, conceived as a collaborative exploration between Thierry Miroglio and Mikhaïl Malt. Rooted in both sonic experimentation and contemplative philosophy, the piece draws its narrative inspiration from the Tantra of the Six Spaces of Samantabhadra, a text that articulates a progressive unfolding of awareness through six dimensions of experience. Structured in six interconnected parts, each “space” being a field of interaction in which acoustic and electronic sound worlds intertwine, dissolve, and reconfigure. The whole unfolding as a listening ritual.

## Biographies

### **G rard Assayag**

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G rard Assayag is an electronic musician and senior researcher at IRCAM.. He is head and founder of the Music Representation research team which explores Machine Musicianship, an ensemble of computational methods for modeling the structures and processes of music from a broad spectrum of interdisciplinary points of views. He has been head of the Ircam research Lab for several years. Assayag led the Music Representations team to international recognition through the production of flagship computer music softwares s.a. OpenMusic, AnteScofo, Orchidea, Omax, Somax, Djazz, Dyci2, RAVE, and of hundreds of scientific publications, PhD and Master's work with a major impact on computer music research and creation. Assayag has produced seminal work on Computer Assistance to Composition, Creative AI and Machine Improvisation and has been recently awarded the prestigious European Research Council Advanced Grant for his career achievement and vision for the future in his project REACH: Raising Co-creativity in Cyber-Human Musicianship ([reach.ircam.fr](http://reach.ircam.fr)). Assayag has performed and invited dozen of world-class musicians to perform at the IMprotech Workshop-Festivals ([improtech.ircam.fr](http://improtech.ircam.fr))

### **Marco Fiorini**

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Marco Fiorini is an Italian musician, researcher, and improviser specializing in musical improvisation and human-machine interaction. Integrating his practice on the electric guitar, live electronics, and computer music design, his work explores new paradigms of spontaneous cyber-human cooperation. He is a doctoral candidate at Sorbonne Universit  and a researcher in the Music Representation team at IRCAM, where he contributes to the ERC REACH project and the co-development of the co-creative improvisation systems Somax2, Somax for Live and SoVo, a new hybrid system combining IRCAM's Somax2 and George Lewis's Voyager. Holding degrees in Sound and Music Computing (MSc, Aalborg University), Electronic Music (MA), Jazz Guitar (BA,

Conservatory of Bologna), and Software Engineering (BSc, University of Bologna), Fiorini bridges deep technical expertise with high-level artistic practice. He collaborates extensively on artistic research and production projects with internationally renowned musicians, including Joëlle Léandre, George Lewis, Roscoe Mitchell, Steve Lehman, and Miles Okazaki. His performances and academic work have been featured at major global venues and festivals such as Carnegie Hall (New York), ManiFeste (Centre Georges Pompidou, Paris), Klang (Copenhagen), Improtech (Paris/Tokyo), Mixtur (Barcelona) and others. Fiorini regularly presents his research at premier peer-reviewed conferences, such as ICMC, NIME, SMC, JIM. As an educator, he has given lectures and led workshops at many major institutions worldwide, including the Conservatoire National Supérieur de Musique et de Danse de Paris (CNSMDP), Tokyo Geidai University of the Arts, and Berklee College of Music in Boston. Recently, he was awarded a prestigious Japan Society for the Promotion of Science (JSPS) Fellowship to pursue his research at The University of Tokyo in 2026-2027.

### **Lara Morciano**

After her musical studies in Italy (diplomas of Composition; Piano; Choral Music and Choral Direction; Piano, analysis and reduction of the score) and a Master's degree in composition with Franco Donatoni at the National Academy of Saint Cecilia, *Lara Morciano* develops her artistic and research activities in France, notably at the Strasbourg Conservatory (with Ivan Fedele), at Ircam, at Paris 8 University (Master of Arts) and at PSL Research University (PhD SACRe, in partnership with CNSMDP, ENS and Ircam). Her compositions are performed at the most prestigious festivals in Europe, USA, Asia and Oceania. She received commissions from the French Ministry of Culture, Ircam-Centre Pompidou, the Ensemble intercontemporain, Radio France, The Venise Biennale, ZKM, GRAME/Auditorium Orchestre de Lyon, Ensemble Orchestrale Contemporain, Musica-Strasbourg, Printemps des Arts of Montecarlo, festival Ensemble(s), Pablo Casals...Winner of the 2008 *Tremplin* selection of the Ensemble intercontemporain and Ircam, she won the *Giga-Hertz Prize* international composition competition in Germany in 2012, the *ICMA Audience Award for Best Music Presentation* at the International Computer Music Conference (ICMC) in New York in 2019

and the *Prix Navista* in 2022. In her mixed works, the use of computer devices links different aspects of her compositional research: instrumental virtuosity, timbral research, rhythmic articulation, real-time interaction, co-creativity and production of spatio-temporal forms in the listening space.

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**Thierry Miroglio** gave for several years in forty countries soloist concerts in venues, prestigious Festivals from Salzburg, Berlin Philharmonie to New York, Venice Biennale and Paris, from Sao Paulo, Beijing, Mexico city to Tokyo, Hong Kong and Chicago...Actually one of the very few percussionists realizing such a high level of solo activity, his repertoire includes more than 400 works (solo and concerti). Numerous international Radio-TV stations produced his concerts, dedicating him broadcastings. Recording of 20 CD's for international labels (Naxos, Harmonia Mundi, Stradivarius...) Close collaboration with composers like Cage, Berio, Saariaho, Grisey, Risset, Denisov, Donatoni, Unsuk Chin, Romitelli, Teruggi, Battier, Chagas, Barrière, Mochizuki, Zhang Xiaofu, Nodaira, Fernandez, Xu Yi, Ohana, Morciano, Stroppa, Manoury, Jolas, Fedele, Dufourt .... premiering their pieces dedicated to him. Professor of Percussion at D.Milhaud Conservatory (Paris), giving masterclasses, lectures , his recent activities include Concerti with orchestras ( Germany, Spain, Brasil, France, Italy, Taiwan, Bolivia, Macau, Chili, Monte Carlo, Argentina, Hong Kong ...) like recitals, performances in Europe, Asia, Africa, South America and USA which join Music, Visual and Numeric Arts, crossing Improvisation with Ircam applications, Theater, Dance.

Percussion studies with the eminent soloists Jean-Pierre Drouet, Sylvio Gualda, musical Acoustic at Sorbonne University with Xenakis.

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### **José Miguel Fernández**

José Miguel Fernández studied music and composition at the University of Chile and at the LIPM (Laboratory for Research and Musical Production) in Buenos Aires, Argentina. He later pursued composition studies at the Conservatoire National Supérieur de Musique et de Danse de Lyon and attended the Ircam Composition Cursus. His work encompasses

instrumental, electroacoustic, and mixed music compositions. His works have been performed in the Americas, Europe, Asia, and Oceania, and he has participated in numerous international festivals. He was selected for the International Electroacoustic Music Competition of Bourges in 2000 and won the Grame-EOC International Composition Competition in Lyon in 2008, as well as the Giga Hertz Award from ZKM/EXPERIMENTALSTUDIO in Germany in 2010. In 2014, he was selected by Ircam for the Composer-in-Residence Program in Musical and Artistic Research, focusing on interaction in mixed music. In 2018, he was awarded a residency in collaboration with the Society for Arts and Technology (SAT) in Montreal, dedicated to electronic composition for an audiovisual project. In 2021, he defended his Ph.D. in music (research in composition) at Sorbonne University/Ircam, and he is currently conducting postdoctoral research within the RepMus team at Ircam. His research primarily focuses on electronic music composition, improvisation and the development of new tools for mixed and electroacoustic music creation. In parallel with his work as a composer, he is involved in pedagogical and creative projects that integrate computer music.

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### **Mikhail Malt**

With a dual scientific and musical background in engineering, composition and conducting, Mikhail Malt began his musical career in Brazil as a flautist and conductor. He is the author of a thesis in musicology, at the École des hautes études en sciences sociales, on the use of mathematical models in computer-assisted composition, as well as an HDR (Habilitation à diriger des recherches). He was an associate professor at the Sorbonne Paris IV from 2006 to 2012, lecturer in computer music at the pedagogical department of Ircam, Paris-France until 2021 and Researcher in the Musical Representations team at Ircam . He is currently in an artistic residency in the Musical Representations team at Ircam and a research associate at iReMus-Sorbonne in Paris. He pursues his creative and research activities on generative music, creative systems, the epistemology of representation and different listening strategies

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