

QUANTUM  
SOUND S  
SYMPOSIUM

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JUNE  
2023

# 6 June

- 9:00-9:30 Registration
- 9:30-9:35 Quick welcoming words by Reiko Yamada and Maciej Lewenstein
- 9:35-11:00 Lecture-Concert “Tensorial Ripples”**  
Eduardo Reck Miranda, Paulo Itaboraí, and Cephass Team (University of Plymouth)  
*Auditorium, ICFO*
- 11:00-11:20 Coffee and Snack Break
- 11:20-12:10 Panel Discussion #1 “Quantum Sounds? What are they?”**  
Mónica Bello (Arts-CERN), Anna Sanpera (UAB), Andrés Lewin-Richter (UPF-Phonos)  
*Nest Hall, ICFO*
- 12:20-13:20 Symposium Lunch
- 13:20-14:20 Lecture-Concert “Iannis Xenakis: Random Walks in Sound and Music”**  
James Harley (University of Guelph) and Marcin Hałat (violinist)  
*Auditorium, ICFO*
- 14:20-14:40 Coffee Break
- 14:40-15:30 Panel Discussion #2 “Photons, Vibrations and Space”**  
Antoine Reserbat-Plantey (CNRS-Chrea), Voldemārs Johansons (Sound Artist) and Yu Bi (qurv.tech)  
*Nest Hall, ICFO*
- 15:30-16:40 Lecture-Concert “Reflections of the Quantum Realm: Superconducting Qubits and Variable Quantum Oscillator Design for Music Synthesis”**  
Spencer Topel (Physical Synthesis) and Florian Carle (Yale Quantum Institute)  
*Auditorium, ICFO*
- 16:40-17:00 Coffee and Snack Break
- 17:00-17:45 Talk-demonstration “Quantum-compositionality enabled music composition”**  
Bob Coecke (Quantinuum)  
*Auditorium, ICFO*

Catering provided by ICFO

10:00-11:00

**Lecture-Concert “Composing with classical and quantum harmonic oscillators”**  
Rodney DuPlessis (Worcester Polytechnic Institute)

11:00-11:25

Coffee and Snack Break

11:25-12:25

**Lecture-Concert “Interpreting Quantum Randomness, Studies on Wigner Function”**  
Reiko Yamada, Eloy Pinol, Samuele Grandi (ICFO), Maciej Lewenstein (ICFO-ICREA), and Flying Trees String Quartet  
*Auditorium, ICFO*

12:25-14:30

Lunch Break

14:30-15:30

**Lecture-Concert “LightMatrix: A Light-Sensitive Musical Control Interface”**  
Eli Fieldsteel (Experimental Music Studios, University of Illinois)  
*Auditorium, ICFO*

15:30-15:50

Coffee and Snack Break

15:50-16:40

**Panel Discussion #3 “Music and Quantum Computing”**  
Leticia Tarruell (ICFO), Jose Manuel Berenguer (UB), Maciej Lewenstein (ICFO-ICREA)  
*Nest Hall, ICFO*

16:50-17:50

**Lecture-Concert “Hilbert Space Deep House - Composing Electronic Dance Music with quantum states”**  
James Weaver and Brian Ingmanson (IBM)

Catering provided by ICFO

# June 7

# June

# 8

10:30-11:30

**Round Table Discussion 1: Quantum future in the field of arts and humanities**

Spencer Topel (Physical Synthesis), Eoin Phillips (La Salle-URL), Artur Garcia Saez (BSC-CNS)  
*La Salle, Ramon Llull University*

11:30-11:50

Coffee break

11:50-12:50

**Round Table Discussion 2: Quantum Computers and Creativity**

James Weaver (IBM), Rosa María Alsina (La Salle-URL), Eduardo Reck Miranda (University of Plymouth)  
*La Salle, Ramon Llull University*

13:00-14:00

**Visits to Anechoic and Reverberant Chambers  
Sound Performance “Resonant Spaces”**

Mathias Klenner (UB) and Carmen Julia Martinez Suquia (La Salle-URL)

19:00-19:30

**Joint Lecture “Looped in the Sound of Photon”**

Ángel Faraldo (composer, performer) and Carlos Abellan (QUSIDE)  
*Hangar.org*

19:30-21:00

**Quantum Random Number Generator  
Improvisation Concert**

Ángel Faraldo, James Harley, Rodney DuPlessis, Voldemārs Johansons, Cephas Teom, Spencer Topel, María Aguado Yáñez, Reiko Yamada (performers), Jose Manuel Berenguer (sound diffusion)  
*Generator technician: Jose Ramon Martinez (QUSIDE)  
Hangar.org*

1800-20:00

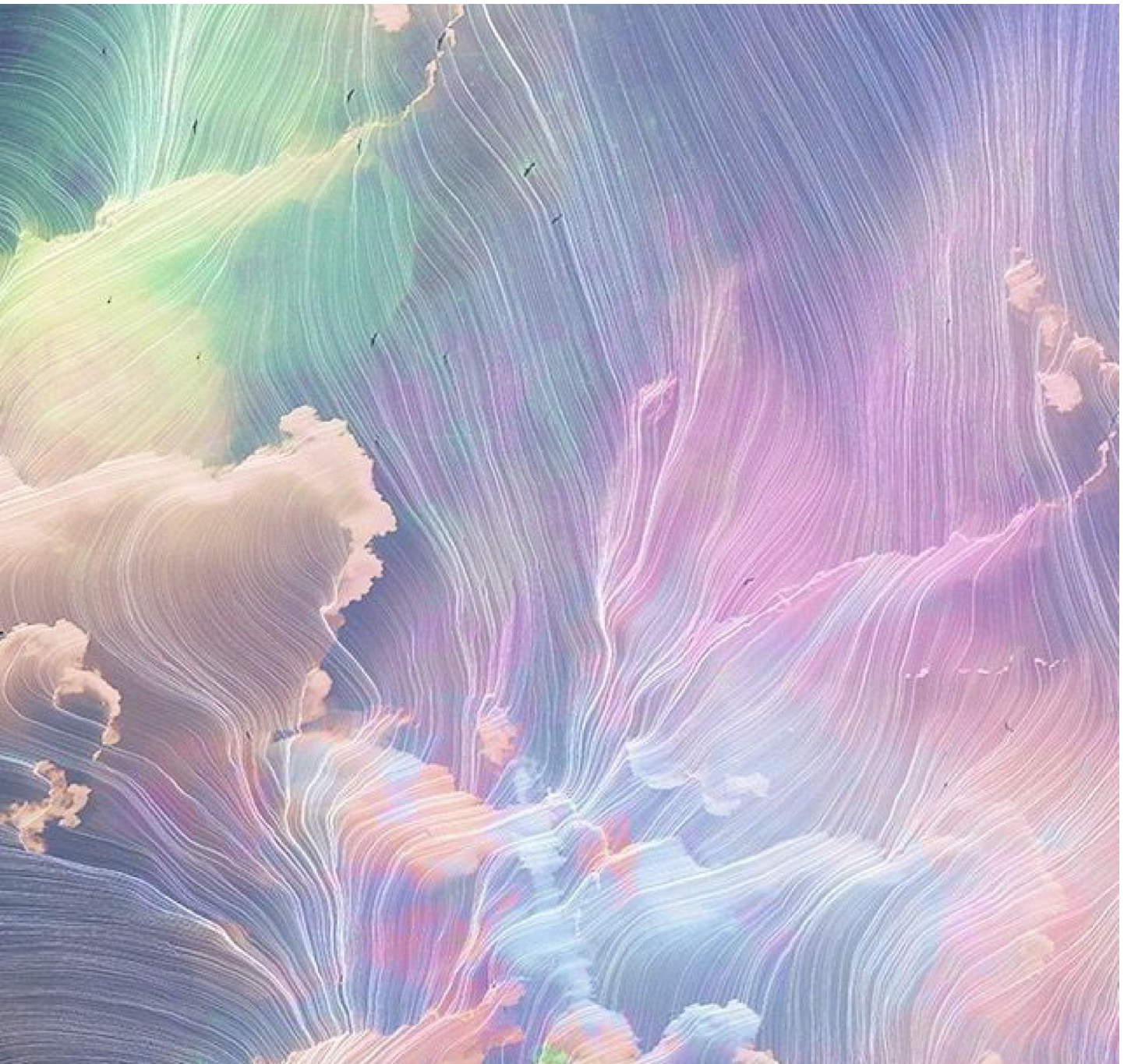
**SuperCollidar Workshop**

Eli Fieldsteel (Experimental Music Studios, University of Illinois)  
*Toplap Barcelona*

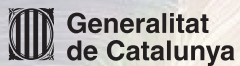
Catering provided by ICFO

# 9

# June



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