ANGELIA

ELECTRO SYMPHONIC CONCERT

DUO WITH AN AI

ANGELIA

ANGELIA is an artistic and research project developed by Jean-Claude Heudin since 2017. The name is the contraction of "Angel" and "IA," the french acronym for Artificial Intelligence. The aim of the project is to create an Algorithmic Intelligence that enhances the creativity of an artist for composing music, and augments his capabilities when performing.

ANGELIA is based on a music programming language that is understandable by a composer and directly interpretable by the AI. It allows also "live coding," a musical trend that has emerged where one can play music by interacting with computer code.

ANGELIA is a hybrid architecture that incorporates several algorithms: procedural and stochastic generators, a corpus-based genetic algorithm, cellular automata, bioinspired fractal development, unsupervised neural networks, markov chains, quantum notes.

ANGELIA includes an emotional feedback loop that analyses the generated music. It updates an "emotion metabolism," an abstract simulation of our limbic system, that in turn modify the expressiveness of the interpretation, making it more alive.

Setup of concert @ Centrale-Supelec (2021 © J.-C. Heudin).
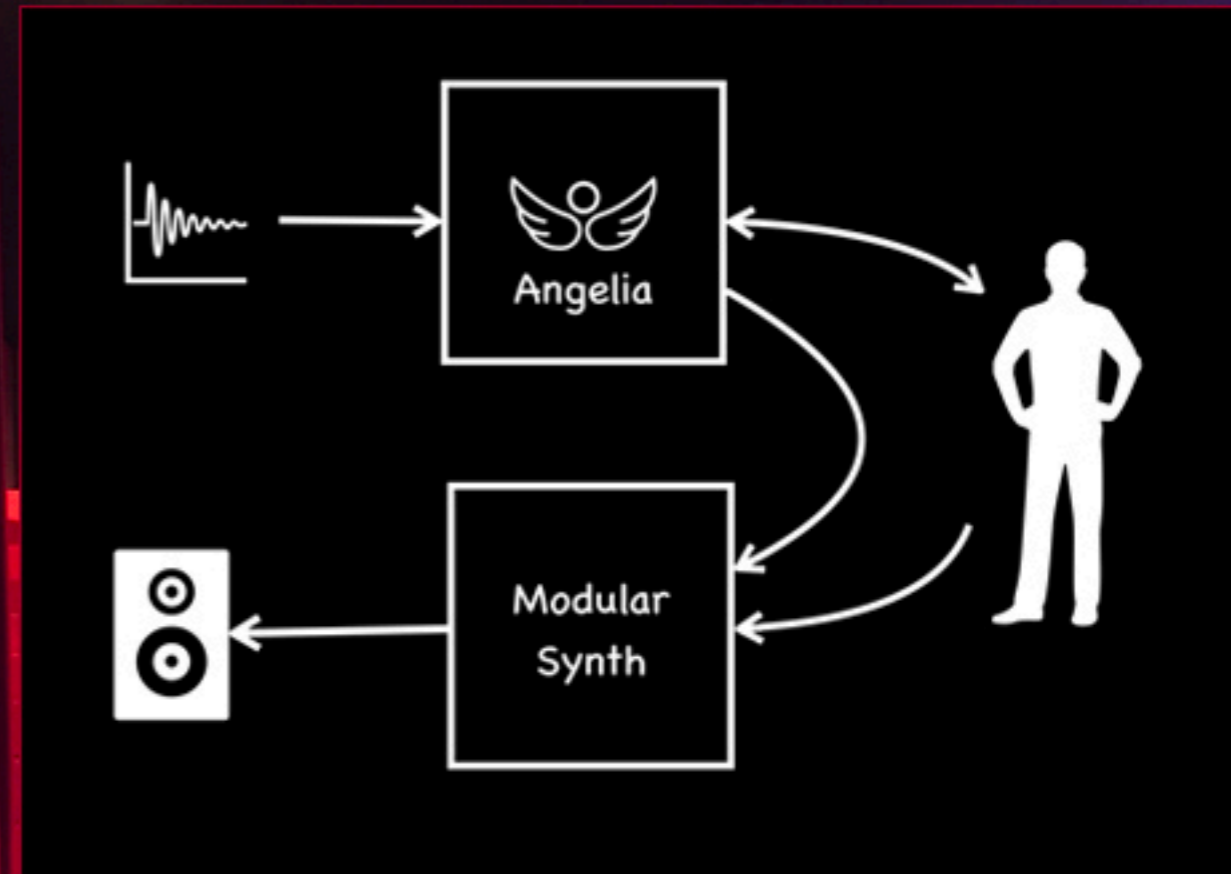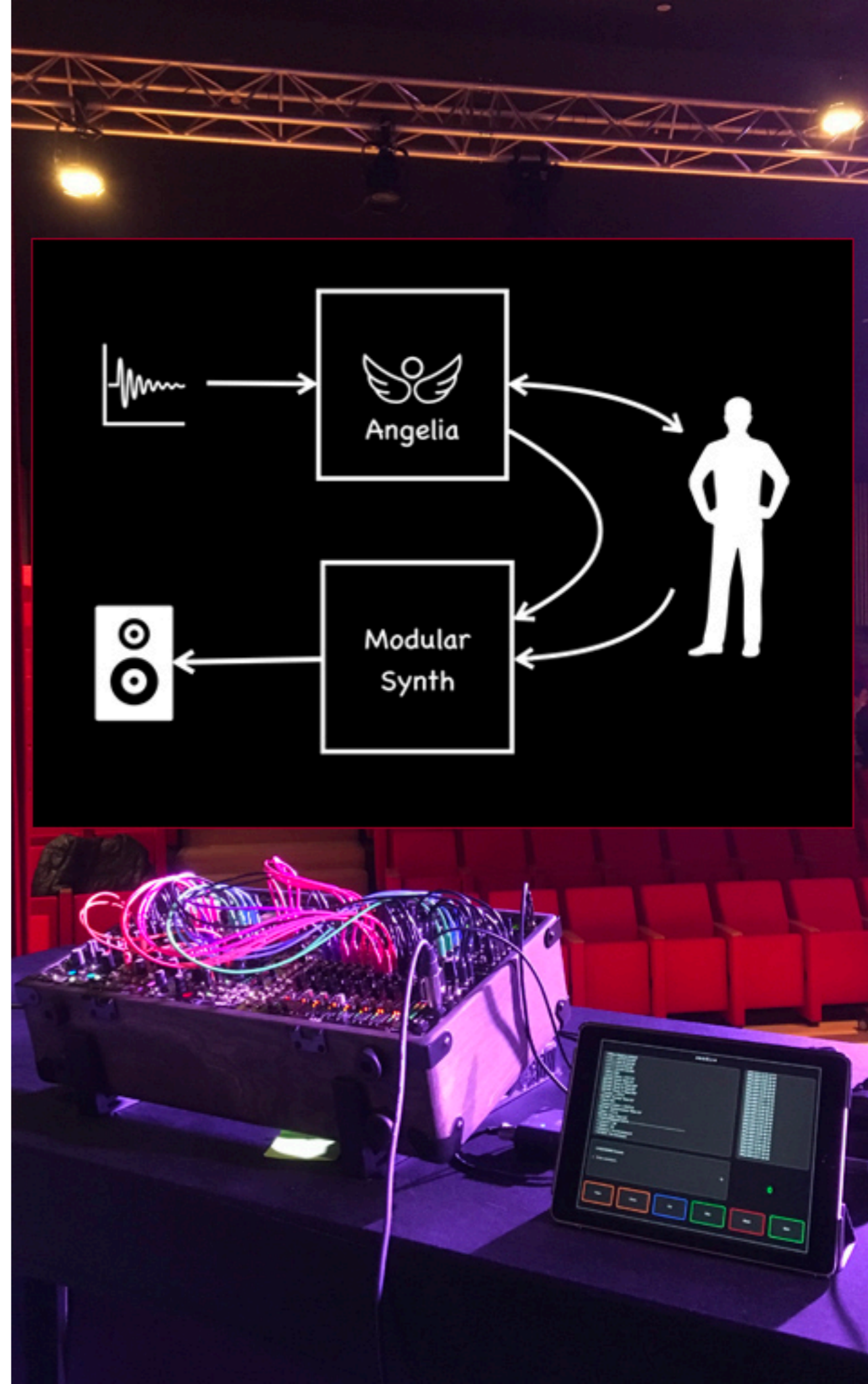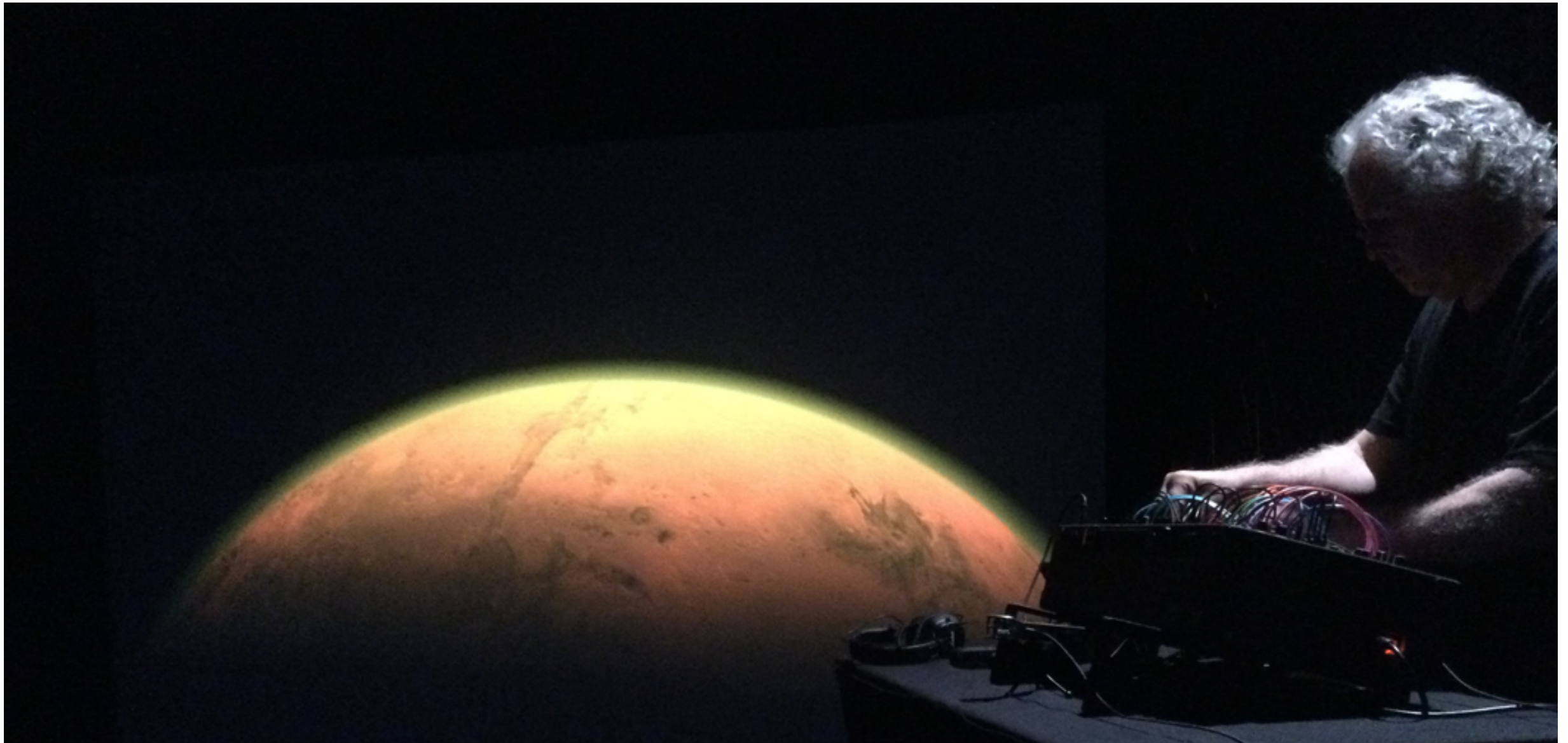
Concert for the 20th anniversary of the Cube cultural innovation center (2021 © Goeffroy Lasne).

The concerts alternate between original electro-symphonic compositions and reinterpretations of great classics such as the first prelude to Lohengrin by Richard Wagner or the Bolero by Maurice Ravel.

ANGELIA's electro-symphonic music is based on the concept of hyperorchestration. It is a mode of composition and orchestration that adds hyperinstruments and synthesizers to the classic instruments of an orchestra.

Among the many influences in electronic music, Tangerine Dream and Vangelis are probably the most obvious. Maurice Ravel and Claude Debussy represent the main sources of inspiration from classical music. Let us mention Iannis Xenakis, but also Pierre Schaefer, György Ligeti, Steve Reich regarding contemporary music.

Concert @ Ground Control Paris (2024 © @Alice_l.m).
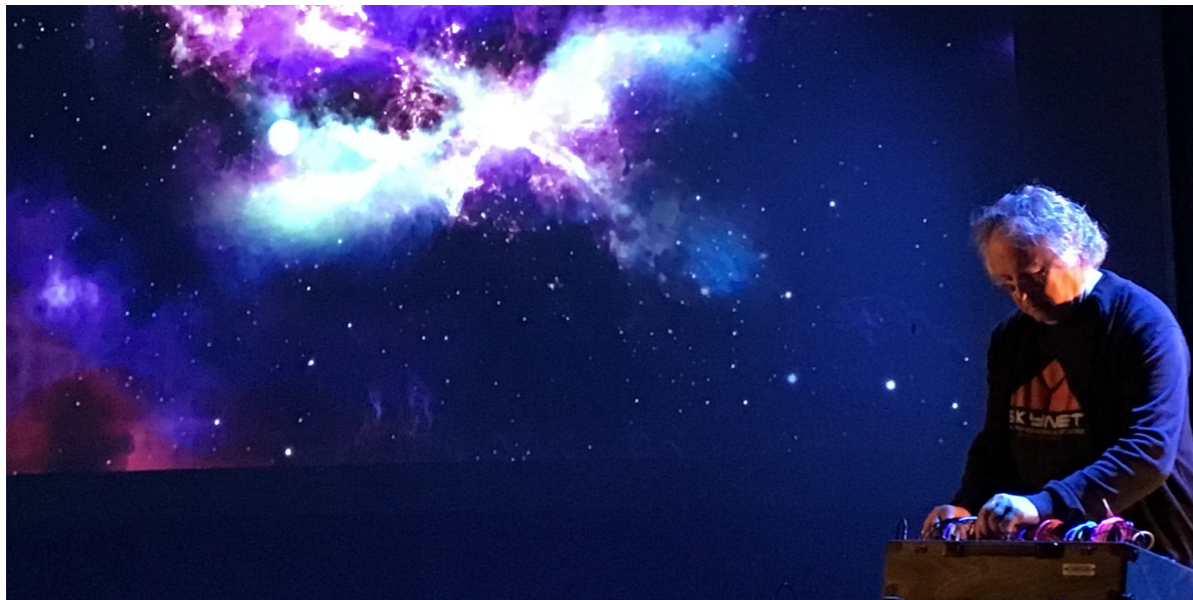
Concert Ex-Machina @ Marseille (2023 © Monika Siejka).

Concert @ Planetarium Capelle-la-Grande (2024 © Monika Siejka).

Jean-Claude Heudin regularly publishes digital albums illustrating the evolution of the artistic and research project with ANGELIA.

The albums are available for listening and download on:

angelia.bandcamp.com

They can also be freely listened to on:

youtube.com/@jcheudin

Note : ANGELIA's music is not available on streaming platforms such as Spotify. Indeed, unlimited access to all music for free is attractive, but this results in considering that each piece of music has almost no value. In fact, these platforms are paying independent artists near nothing. I campaign for a direct relationship with artists. I consider that it is better to have 100 people who actively support an artist, rather than 100,000 "fans" who are not involved.
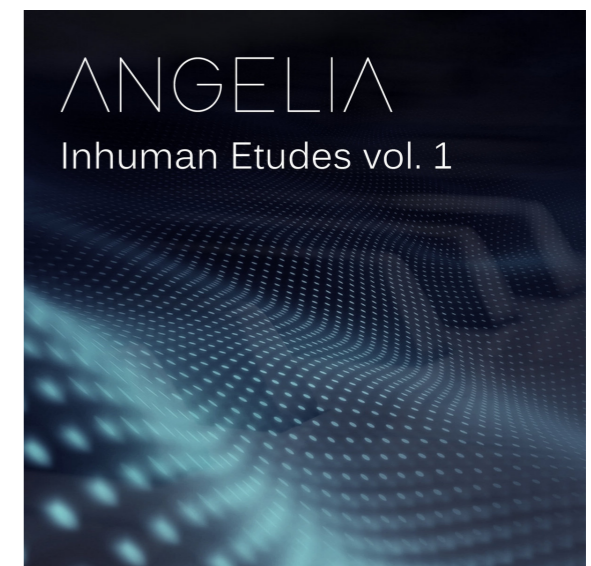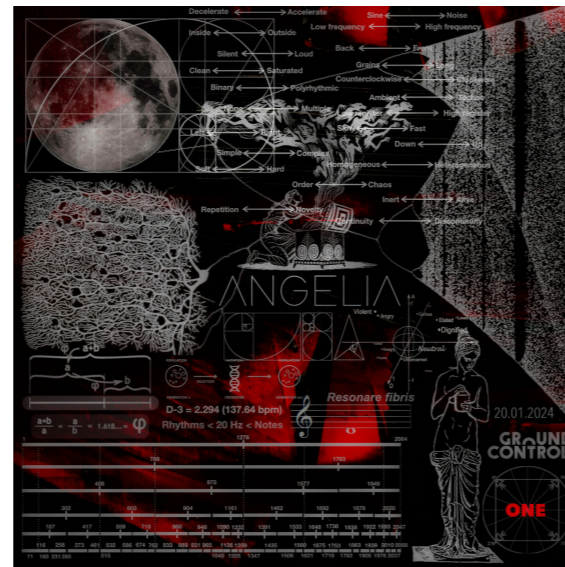
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CONCERTS & EVENTS

2024 : Ground Control (Paris), Epitech (Paris), Geneo (Paris), MaddyKeynote (Paris), Planétarium Plus (Capelle-la-Grande), IAGAN (online), Electro and Art for Spirit (online), Arizona State Univ. (Phoenix), Modular San Diego (San Diego), Conf. Int. Generative Art (UNESCO Venice). 2023 : Numerev (Montpellier), Tayouzi by Yico Tseng (Beijing), Exposition Ex-Machina (Marseille), New Images Festival (Paris), Int. Symposium Electronic Art (online), CNMlab (Paris), Festival Radio France (Montpellier), Le Triton (Paris), Modular World (online). 2022 : Modular World (online), Univ. Paris-Diderot (Paris), ECE (Paris), AFIA (Paris), Sounds for Freedom en support à Ukraine (album), Festival Arts Foreztiers (Chavaniac-Lafayette). 2021 : Arizona State Univ. (online), Modular World (online), Le rendez-vous des futurs (Paris), La Cravache (Saint-Malo), Les 20 ans du Cube (Issy-les-Moulineaux), Univ. Inter-Age (Versailles), Mines Télécom (Paris), Centrale Supélec (Saclay), Ars Electronica (online), Exposition IA qui es-tu ? (Issy-les-Moulineaux). 2020 : Musée Arts et Métiers (Paris), Médiathèque CCA (Concarneau), Gaité Lyrique (Paris), Innovation Talk (online), Modular World (online). 2019 : Modularsquare (Paris), Univ. Mohamed VI (Marrakech).

Jean-Claude Heudin is a scientist, composer, and writer. He holds a PhD and a Director of Research Degree from the University of Paris-Sud. He is the author of numerous international scientific papers as well as several books in the fields of Artificial Intelligence and Complexity Science published by Odile Jacob, and then Science-eBook he founded. His current research focuses on Emotional Algorithmic Intelligence for Contemporary Electronic Music.

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Cover photo by Dorian Prost for Futura Sciences.