Compile Time

AIMC 25 Concert 1

Guest performance: AI-MUSICKING

GIUSY CARUSO (PIANO); ADILIA YIP (MARIMBA/BALAFON); UMUT ELDEM (AI)

The growing influence of AI is transforming the way technology is used in artistic expression. The CREATIE research group at the Royal Conservatoire Antwerp, brings together improvisation and generative AI models, trained on their musical practices and timbres to explore the limitless possibilities of co-creation with AI as an active creative partner. In this project, the algorithms create live sounds and musical phrases that resonate with the human-generated music.

Noise through to twos and sevens

TANGUY POCQUET

Companion Paper

This piece is the result of the sonification and visualization of an artificial neural network's processing data. At its core, it is an attempt at making art from artificial intelligence with a non-generative approach, leaving all creative agency to the artist; at exploring structures inherent to the operation of neural networks; at commenting on the nature of these ubiquitous, yet notoriously unintelligible algorithms. It does so by focusing on some of the network's internal data streams during training, look- ing at their gradual movement from noise to order, and mapping this information onto sound and visual materials and processes derived from 'glitch' and drone traditions, that offer interesting aesthetic parallels to this evolution of the data.

Riot Spa Areal Nit Asian Tutu

IVAN EIJI SIMURRA

Companion Paper

This paper presents a symbolic-acoustic system for musical recomposition that bridges audio descriptor analysis, machine listening, and symbolic AI through generative grammars. The system integrates spectral-temporal clustering and formal grammar induction techniques: N-Grams, Sequitur, and L-Systems, to construct rule-based sonic recomposition from real-world audio. Unlike corpus-trained neural models, the system emphasizes local savvy, interpretability, and structural pellucidity, enabling compositional control at both the micro and macro levels. The resulting compositions, created through probabilistic rules and dynamic transformations, demonstrate a hybrid approach to musical creativity: one that is algorithmic yet perceptually grounded, symbolic yet acoustic. The work contributes to contemporary discussions on AI music creativity by offering a flexible, explainable, and artistically guided compositional method based on sound analysis, symbolic logic, and generative synthesis. From this project, we designed the 2025 electro-acoustic music composition called Riot Spa Areal Nit Asian Tutu which is the first creative music experiment from this system.

My Computer's Interpretation of Falling Down

STEVIE J. SUTANTO

Companion Paper

My Computer's Interpretation of Falling Down explores the sounds of objects falling, rolling, spinning, and sliding across different surfaces. Using a text-to-sound model, the piece was built from prompts that varied material, size, and movement, generating a corpus of imagined sonic events. These fragments were then shaped into sequences through a machine learning model, where impacts connect with rolls, and slides echo after collisions. The result is a form that feels

both unpredictable and natural—an exploration of weight, texture, and motion, where listening becomes a way of tracing the path of falling objects in a world of its own. Rather than imitating reality, the work embraces the strange interpretations and hidden biases of the computer, creating a dialogue between language, machine, and imagination.

The composer as vibe specialist

DER KÜCHENCHEF

Companion Paper

Apparently, the way of the future is by vibing with AI platforms, i.e., textually describing what one wants, waiting for the bespoke output, and finally taking pride in having created something. This work explores that future. More specifically, I describe to one platform the computer code I want it to generate (vibecoding) that I can use to remix video files in “artsy” ways. I describe to another platform what music audio I want it to generate (vibesynthing) to accompany a processed video file. I curate materials from the results and compile into short video works to mix together.

Incerta

RODRIGO F. CÁDIZ

Companion Paper

Incerta is an electroacoustic composition that explores the artistic potential of fuzzy logic as a tool for creative decision-making in music. Rather than relying on data-driven generative models, the piece is structured around a rule-based fuzzy inference system designed by the composer, allowing for nuanced, interpretable control over spatial and temporal processes. The system governs the activation and diffusion of 21 sound sources across an eight-channel setup, using dynamic Gaussian functions whose parameters evolve according to fuzzy logic rules. By adjusting the behavior of these functions, the composer can shape multiple distinct performances of the piece, each emergent, yet bounded by aesthetic intent. This paper situates Incerta within the broader discourse on algorithmic composition and creativity, highlighting how fuzzy systems offer a compelling alternative to black-box AI approaches. Through an “artist-in-the-loop" methodology, Incerta foregrounds uncertainty as a compositional force, enabling complexity, variation, and control to coexist within a human-guided creative process.

PATIENCE X

LOIS MACDONALD

Companion Paper

PATIENCE X is a collection of seven audio compositions exploring the integration of machine learning tools into compositional and performative workflows of alt-pop. This practice-led research examines real world AI-assisted music composition. Through qualitative experimentation with selected AI tools and original datasets of female vocals collected by the researcher, PRiSM SampleRNN emerged as most artistically effective for generating unique samples for selection and manipulation. The findings emphasise the need for a balance between artistic control and algorithmic unpredictability, ensuring AI functions as a creative catalyst rather than a tool merely for extensive replication. Additionally, accessibility remains critical. For AI tools to be practically useful to musicians, they must accommodate non-coding artists without compromising usability and creative flow. Composed between 2022 and 2023, PATIENCE X serves as a document of accessible systems during this period as well as demonstrating their sonic aesthetics. Through the process of discovery the project led to the formation of a new artist persona, 'PATIENCE’, a genuine representation of extended musical expression through AI use.

Artists

GIUSY CARUSO
Giusy Caruso is postdoctoral artist-researcher and professional concert pianist oriented towards the nexus of art-science-technology. Chair of the CREATIE Research Group at Royal Conservatoire Antwerp, her research explores new forms of human-machine interaction – such as the role of gestural technology (EMG and Motion Tracking) for the creation of XR performances, the analysis of gestures and AI applications.

ADILIA YIP
Adilia Yip is a marimbist, percussionist and postdoctoral researcher. She obtained her PhD in the Arts from the University of Antwerp and the Royal Conservatory of Antwerp (KCA) (2012-18). Her research focuses on both the West African balafon tradition and the Central African xylophone collections of the Africa Museum in Tervuren (BELSPO BRAIN-be 2.0). She investigates the cross-pollination of music traditions and technology, with a special focus on co-creation.

UMUT ELDEM
Umut Eldem is a composer, audiovisual artist, and researcher. His compositions and research focus on the exploration of music within interdisciplinary and technological contexts. He holds a PhD from the Royal Conservatoire of Antwerp, where he currently works as a lecturer and CREATIE research group coordinator. He teaches courses and leads workshops in Audiovisual Composition, Musical Analysis, and Electronic Music. As a Max Certified Trainer, he also regularly organizes workshops on algorithmic composition and generative art.

TANGUY POCQUET
Whether in instrumental, fixed media, programmed live electronic, or installation works, I like to focus on timbres, and use them as compositional starting points that may lead to structural, harmonic or even melodic considerations. I am interested in non-narrative structures, exploring statis, glacially slow transformations, or the use of discrete frames to organize musical material, and am very influenced by glitch, drone, and instrumental experimental traditions.
My research centers on data-driven music, more particularly using processing data from machine learning algorithms. I aim to bring what is generally hidden into focus, looking at the process more than the outcome, and repurposing errors and glitches (in data and in sound) as the basis for audiovisual works that aim to be both poetic, transfictional representations of intangible data, but also provide some insights into how notoriously opaque algorithms operate.

IVAN EIJI SIMURRA
Ivan Eiji Simurra is a composer, researcher, and teacher specializing in algorithmic composition, electroacoustic music, and artificial intelligence for music creation. His work investigates the inter- section between symbolic modeling, machine listening, and creative sound recomposition. Simurra has presented works internationally at conferences such as ICMC, SMC, and AIMC. He is currently a faculty member at Unicamp, where he teaches composition and music technology. His recent projects explore generative systems based on audio descriptors and formal grammars applied to experimental music.

STEVIE J. SUTANTO
Stevie J. Sutanto (b. 1992) is an Indonesian composer and sound artist currently based in Jakarta. His practice and research focus on the interactions between artificial intelligence and sound processing. Additionally, he is interested in the critical use of laptops and augmented instruments in composition and performance. Some of his works have been performed by Duo Amrein, Ensemble Modern, Grupo 20/21, Quatuor Tana, NAMES Ensemble, and Quatuor Bozzini at festivals and events worldwide, including the Manila Composers Lab (MCL), Yogyakarta Contemporary Music Festival (YCMF), Ruang Suara - Frankfurt Lab, Asian Composers League, Holland Festival, Ars Electronica Festival, Shanghai New Music Week, Crossroads'17, WeSA Audiovisual Festival (WeSA), International Computer Music Conference (ICMC), Linux Audio Conference (LAC), and New York City Electroacoustic Music Festival (NYCEMF).

DER KÜCHENCHEF
Der Küchenchef is a 49-year-old chef living on the outskirts of Vienna, where he works in a school kitchen. He got his start with AI music using Boomy, where he is perhaps best known for his album "Long time listener, first time whistler" (https://youtu.be/hfiX0lKrZzE). He now focuses exclusively on vibecoding music and visuals.

RODRIGO F. CÁDIZ
Rodrigo F. Cádiz is a composer, researcher and engineer. He studied composition and electrical engineering at the Pontificia Universidad Católica de Chile (UC) in Santiago and he obtained his Ph.D. in Music Technology from Northwestern University. His compositions, consisting of approximately 70 works, have been presented at several venues and festivals around the world. His catalogue considers works for solo instruments, chamber music, symphonic and robot orchestras, visual music, computers, and new interfaces for musical expression. He has received several composition prizes and artistic grants both in Chile and the US. He has authored around 70 scientific publications in peer reviewed journals and international conferences. His areas of expertise include sonification, sound synthesis, audio digital processing, computer music, composition, new interfaces for musical expression and the musical applications of complex systems. He has obtained research funds from Chilean governmental agencies, such Fondecyt and CNCA. He

received a Google Latin American Research Award (LARA) in the field of auditory graphs. In 2018, Rodrigo was a composer in residence with the Stanford Laptop orchestra (SLOrk) at the Center for Computer-based Research in Music and Acoustics (CCRMA), and a Tinker Visiting Professor at the Center for Latin American Studies, Stanford University. In 2019, he received the prize of Excellence in Artistic Creation from UC, given for outstanding achievements in the arts. In 2024, he was a visiting researcher at the Orpheus Instituut in Belgium. He is currently full professor at the Music Institute and Electrical Engineering Department of UC.

LOIS MACDONALD

Lois Macdonald is a multidisciplinary artist and musician with over a decade of experience working in the music industry. She is guitarist/synths in Manchester group PINS, and vocalist/guitarist in art punk project Grave Goods. She has recorded around the world and toured extensively with different projects. Lois is also lecturer in Music and Sound Design at SODA, MMU. Her current research is on AI use in music composition. Her most recent project 'PATIENCE' is an ongoing enquiry into the human voice, new technology and extended human expression.