Run Time
AIMC 25 Concert 2

Revival
K-PHI-A
KEON JU MAVERICK LEE; DR. PHILIPPE PASQUIER; VJ AMAGI
<u>Companion Paper</u>

Revival is an original live audiovisual performance and improvisation by the artist collective K-Phi-A, merging human artistry with AI musicianship to craft electronic music accompanied by responsive visuals. The piece features real-time co-creative improvisation between a percussionist, an electronic music performer, and AI musical agents. These agents, trained on works by late composers as well as the collective's own repertoire, actively respond to human input and emulate sophisticated musical styles. Complementing the sound, an AI-powered visual synthesizer—guided by a live VJ—generates evolving imagery in sync with the performance. Revival exemplifies the creative synergy between human performers and artificial intelligence in improvisational art.

Live Coder in the Loop
ELIZABETH WILSON
<u>Companion Paper</u>

Live Coder in the Loop: Performing with an Autonomous Agent in TidalCycles is a performance wherein collaborative musical interaction is explored with an agent system in the live coding language TidalCycles. The performance will demonstrate a hybrid approach where the human can accept and reject suggestions from an autonomous agent, and the live coder has explicit control over the suggestions from the agent. The agent can generate patterns that are modifiable based on changing affective states to model human emotion. Specifically, this performance interrogates the practical and aesthetic dimensions of co-creating with a code-generating AI agent, prioritising reflection, shared agency, and liveness.

Broken Forecasts
BŁAŻEJ KOTOWSKI
<u>Companion Paper</u>

Broken Forecasts is a live sound performance built around a custom generative system that interprets machine learning uncertainty as a design material. The sys- tem combines autoregressive prediction with a delayed feedback path, where past latents are transformed and fed back into generation, producing an unstable, per- formable trajectory that drifts from learned patterns. A neural synthesizer decodes these latent trajectories into audio in real time. This feedback disrupts learned rhythmic and structural patterns, giving rise to complex, glitch-inflected textures and unpredictable sonic evolutions. Rather than seeking coherence or control, the performance foregrounds recursive instability as a source of aesthetic possibility. By engaging with the feedback dynamics of autoregressive sequence prediction, Broken Forecasts proposes an alternative mode of interaction with generative mod- els, treating them not as tools of prediction, but as uncertain, performable artifacts within a situated sonic practice.

Eval
YIĞIT KOLAT
Companion Paper

EVAL is a musical work that explores two contemporary possibilities within a vintage environment — namely the Commodore 64 and its MOS 6581/8580 SID sound chip. One of these possibilities is AI in retrocomputing: a simplified decoder, adapted to the Commodore 64 BASIC environment, generates short melodic lines derived from a pre-trained variational autoencoder. The other involves real-time sound processing and improvisation using a SID emulator. The performance, controlled live via two Nintendo Switch JoyCons, begins as a playful interaction between human and machine and takes an unexpected turn.

Cybernesis
DAVID PIAZZA
Companion Paper

Cybernesis is a performance piece that explores the interaction between human gesture, machine learning, and real-time sound synthesis. Using a Leap Motion controller, the performer's hand movements are captured and analyzed by custom software. This gestural data trains a multilayer perceptron (MLP), a form of neural network, which in turn predicts and influences the internal state of a complex hardware sound synthesis system. The core of the performance lies in the real-time exploration of nonlinear mapping functions through linear regression, navigated spatially through the performer's listening and intuitive hand movements. This creates a dynamic feedback loop where the performer and the model co-create the sonic output, positioning the learning algorithm not merely as a tool, but as an active participant in the improvisational process mediated by the performer's embodied interaction.

Collective Misinterpretation
ROBERTO MOCHETTI; CARLOS G. ROMÁN; JESSE ALLISON
Companion Paper

This participatory performance builds on a series of process-based compositions that explore the creative tension between human intention and AI-generated outcomes in text-to-audio systems. In this piece, audience members provide real-time textual descriptions of the music being performed. These inputs are synthesized by a large language model into a single prompt, which is then used to generate new audio via a text-to-sound model. The AI output becomes the foundation for the next cycle, where a live performer improvises in response, creating a recursive feedback loop between human perception, language interpretation, and machine generation. This work highlights the artistic value of semantic gaps and misalignments in the interaction between humans and AI models, proposing collective miscommunication as fertile ground for collaborative sonic exploration.

Synthetic Cognitive Feedback
ERIC GUIZZO
Companion Paper

Synthetic Cognitive feedback is a recursive process in which a generative AI model is trained on data it has produced itself. This loop can amplify internal biases, degrade output quality and detach models from real-world data. As human-generated data becomes scarcer, such systems could increasingly rely on synthetic information, leading to possible scenarios where models are trained solely on outputs of other models.
To reflect on this phenomenon, we present a performance where a human finger drummer duets with an AI trained on their actions and recursively retrained on its own outputs. The performer begins alone; the AI gradually overrides human control and eventually takes full command of the execution, meanwhile its performance progressively degrades due to the increasing effect of Synthetic Cognitive Feedback. A projection of the tactile interface makes this shift visible: red parameters are human-controlled, while an expanding field of blue indicates those under AI control.
The work highlights the risks of over-relying on AI while neglecting the development of human knowledge, and encourages reflection on the shifting balance between authorship, originality, and machine-driven creation.

tinySounds
ARNE EIGENFELDT
Companion Paper

An ironic work in which tiny sounds – quiet noises made by the human voice that are barely audible – serve as an input for a noisy and exuberant musebot ensemble that autonomously responds, accompanies, and argues with the live input. Musebots are intelligent musical agents that decide how to respond to their environment – and each other – on their own, based upon their internal beliefs, desires, and intentions.

Artists

K-PHI-A

K-PHI-A is composed of three core members: percussionist Keon Ju Maverick Lee, who collaborates with AI-driven musical agents; electronic music performer Philippe Pasquier, who performs using a custom DIY software sampler called Kenaxis alongside generative agents; and VJ Amagi, who operates the Autolume audiovisual synthesizer to create dynamic, real-time visuals.

Keon Ju Maverick Lee is an electronic percussionist, composer, and sound artist specializing in musical agents and interactive systems for drum and percussion performance. He holds a Master's in computer music from the University of Victoria and is pursuing a Ph.D. at Simon Fraser University's Metacreation Lab for Creative AI. His research blends academic inquiry with artistic practice, focusing on co-creative improvisation between humans and AI. Keon's custom musical agent system was featured in Echoes of Synthetic Forest, a Top 10 finalist in the 2024 AI Music Song Contest, performed in Zürich. His work has been showcased internationally, including at MusicAcoustica (China), Ars Electronica, SIGGRAPH, and IEEE VR/XR. He collaborates with institutions such as the Centre for Digital Music (UK) and IRCAM (France), and has published in leading venues such as the AI Music Creativity Conference and TISMIR Journal.

Dr. Philippe Pasquier is a multidisciplinary media artist, researcher, and Professor at SFU's School of Interactive Arts and Technology. He directs the Metacreation Lab and leads research in generative systems and creative AI. His music AI technologies have reached broad audiences through collaborations with industry leaders such as Steinberg, Ableton, Teenage Engineering, and Elias. His artistic works have been exhibited on six continents.

VJ Amagi is a Vancouver-based visual artist and real-time graphics programmer. He creates live visuals and interactive installations using TouchDesigner and Unity, and develops VJ systems for shader-based live coding. Amagi has presented workshops internationally, including at MUTEK.JP in 2018.

ELIZABETH WILSON

Lizzie Wilson is an interdisciplinary artist and researcher, currently lecturing at [The Creative Computing Institute](#) at UAL having completed a PhD as part of the [Media & Arts Technology](#) centre for doctoral training at Queen Mary, University of London. Her research interests include live computer music, musical pattern, epistemologies of artificial intelligence, techgnosis and human-machine co-collaboration. She has also performed live computer music as [digital selves](#) around the UK and internationally. Some recent works include commissions on Art and AI exploring ritual and collective intelligence; a recent feature in Fact Magazine's Artist DIY series, musical releases on the Cherche Encore and i.u labels, and hosting feminist hackathons.

BŁAŻEJ KOTOWSKI

Błażej Kotowski is a researcher and sound artist working with machine learning and generative audio. He focuses on building small-scale systems that operate with limited data and compute, embracing uncertainty as a creative condition. His work spans performances, installations, and custom tools that explore the aesthetics of unpredictability and failure. As a live performer, he creates computer-based sets that range from immersive and textural to rhythmically driven and disruptive. Across formats, he explores how sound can shape, distort, or complicate our understanding of intelligent systems and their limits. His music has been released on labels including Vaagner / Vaknar, Audio. Visuals. Atmosphere., Trust Collective, Amulet Of Tears, and Hurt By The Sun. He has performed and presented work at the 12th Seoul Mediacity Biennale, Ars Electronica, AMRO Festival, Stream Festival, Sonic Territories, MFRU, CYENS WIP, Phonon, Mixtur Festival, Hangar, Can Sisteré, and +RAIN, among others.

YIĞIT KOLAT

Yiğit Kolat's music draws inspirations and expressions from a wide array of topics ranging from bytebeats to the application and ethics of artificial intelligence in music. The complicated political and social landscape of his native Turkey is a recurring theme in his diverse output. His works, described as "touching and convincing...a multi-sensory universe," (K. Saariaho) have been recognized by a prestigious array of international organizations, including the Tōru Takemitsu Composition Award, the Queen Elisabeth Competition, and the Concours International de Composition Henri Dutilleux. His music has been featured throughout the United States, Europe, and Asia by leading ensembles, among them the Tokyo Philharmonic, Nieuw Ensemble, and Talea Ensemble. He has presented his works at conferences such as Conference on AI Music Creativity (University of Oxford), Spectralisms International Conference (IRCAM), and Reëmbodied Sound Symposium (Columbia University).

DAVID PIAZZA

David Piazza is a composer and performer of electroacoustic music based in Montreal. As an undergraduate student at the Faculty of Music of Université de Montréal, he studied composition under Dominic Thibault, Georges Forget, and conducted research in the field of concatenative sound synthesis and spatialization. Currently pursuing a master's in music composition, his research interests encompass electroacoustic composition and applied machine learning for sound spatialization and synthesis. His works have been performed in the UK, Belgium, France, the United States, and Canada, and he is a recipient of an SSHRC Graduate Scholarship grant.

CARLOS G. ROMÁN
His work bridges sound art, ecoacoustics, and scientific collaboration, with projects spanning biosignal sonification, spatial sound installations, and interspecies audio experiments. He currently directs the Eco-Systemic Sound Lab in the Experimental Music and Digital Media program at LSU.

ROBERTO MOCHETTI
Roberto Mochetti is a sound artist and violist dedicated to experimental and chamber music. He has performed, studied, and taught in Brazil, the United States, and Denmark. Now based in Baton Rouge, Louisiana, he collaborates with local orchestras and chamber ensembles while actively engaging in experimental music projects.

ERIC GUIZZO
Eric Guizzo is an Italian sound artist and machine learning engineer based in Venice, currently affiliated with XLN Audio. He holds a master's degree in Electronic Music and a PhD in Computer Science. His scientific research focuses on emotion recognition from speech audio, knowledge transfer in neural networks, and quaternion-based information processing, work that has led to publications in prestigious venues such as ICASSP, WASPAA and Neural Networks. In parallel, Eric explores the creative potential of AI in sound and visual art. His practice involves continuous experimentation with human-machine interaction paradigms and data-driven approaches to music composition and media synthesis. His commitment to bridging art and science has resulted in the development of custom software tools for sound manipulation, as well as a wide range of digital performances and installations. His audio-visual work has been presented at notable venues including Fabbrica del Vapore (Milan), Errant Sounds (Berlin), Palazzo Malipiero (Venice).

ARNE EIGENFELDT
Arne Eigenfeldt is a composer of live electroacoustic music, and a researcher into intelligent generative music systems. His music has been performed around the world, and his collaborations range from Persian Tar masters to free improvisers to contemporary dance companies to musical robots. He has presented his research at major conferences and festivals, and published over 50 peer-reviewed papers on his research and collaborations. He is a professor of music and technology and an Associate Dean Academic at Simon Fraser University.