Intra-active Sound Lab

Performance Space
City St George's, University of London
Tuesday 10th March 2026, 7pm

Programme

- *Spatial Indeterminacy Studies for "Omniopticon"* (16-channel fixed media, 2026), Jiajing Zhao

- *The Scratched Mirror* (Ambisonic live performance 2026), Ming Yang, featuring ZhiMeng Liu

- *Initially Connected Components* (2-channel fixed media 2026), Turntable Praxis featuring Kash K. (Kinara) & Stellr Leng

- *Naast* (8-channel fixed media 2026), Guyshawn Wong

- *Mandlisse Knots* (16-channel live performance 2025-26), Christopher Haworth and Erik Nyström

Notes

This concert is a follow-up from the Intra-action Knowledge Exchange workshops held by Erik Nyström at City St George's in June 2025. The workshops explored 'intra-active' approaches to computer music, where influence among sounds and processes are emphasised over control in spatial sound synthesis, live performance and algorithmic composition. The workshops were attended by UK-based and international artists, who now bring their individual responses in the form of new original compositions. The concert also features a work by Christopher Haworth and

Erik Nyström, which is performed live with computer-to-computer networked synthesis algorithms.

The concert is presented on SPARCLab, City St George's state-of-the-art spatial sound projection system.

Spatial Indeterminacy Studies for "Omniopticon" (16-channel fixed media 2026), Jiajing Zhao

This series of studies explores spatial indeterminacy for an ongoing project titled Omniopticon. The resulting multichannel fixed-media work allows for fluid redistribution, making it ideal for performance via moving speakers or diffusion theatres. Conceptually, the piece examines the "omniopticon"—a condition of our social media-saturated culture defined by omnipresent mutual monitoring. Within this environment, individuals continually shift between observing and being observed, turning mutual visibility into a spatial condition. The composition integrates concrete sounds—such as camera shutters, electromagnetic noise, mouse clicks, and applause—with abstract synthesised materials. These synthesised elements are derived from processed versions of the source recordings and basic oscillator waves. To generate the work's varied spatial textures, Erik Nyström's "topographic synthesis" has been adapted into Max/MSP with various customisations.

Zhao Jiajing (赵嘉旌; family name–given name) is an electroacoustic composer and sound artist. His work spans acousmatic music, sound installation, performance, and new media, with a specific focus on spatial sound since 2019. He frequently collaborates across disciplines, working with practitioners and researchers in both arts and sciences. His work has been presented at major venues and festivals such as Ars Electronica, IRCAM, ZKM Karlsruhe, ICMC, SICMF, GMEM, and ORF musikprotokoll. Recently, he was selected as the British Representative for the ISCM World New Music Days 2026. Additional recognitions and commissions include those from Musica Nova, Aesthetica × Audible, the Shanghai International Arts Festival, and Musicacoustica. Zhao holds an MA from the Royal College of Art and is pursuing a PhD at the University of the Arts London.

The Scratched Mirror (2026), Ming Yang

Live performance by ZhiMeng Liu and Ming Yang

This duo for piano and MIDI keyboard is a meditation on mechanical friction and the digital reconfiguration of touch. The work stands as a direct homage to Helmut Lachenmann, specifically his seminal work *Guero*. Like Lachenmann, this piece treats the instrument as a tactile topography, prioritizing the rhythmic and timbral "noise" of scratching over traditional
pitch.

The sonic material is born inside the piano, where the performer strikes and scratches the strings and soundboard to create a raw, acoustic "seed." This sound is immediately captured by a concatenative synthesis engine governed by machine learning. Unlike a traditional electronic setup, the MIDI keyboard player acts as a specialized navigator: their scratching of the keys generates both a mechanical click and a singular, continuous control stream that alters one specific parameter of the synthesis. In this environment, the machine learning algorithm is not an autonomous force, but a shared instrument—a bridge of friction and data connecting two bodies in a single, unified mechanical act.

Initially Connected Components (2026), Turntable Praxis featuring Kash K. (Kinara) & Stellr Leng

Turntable Praxis is part of a wider Turntable Theory research chapter exploring sonic philosophy & sociology through vinyl culture. Recent projects have included 'Angst of Fire 🔥 in Mozambique', 'Refrain...' & 'Pyramids of the Gaza Triangle'. The selections here are variously taken from these chapters. The compositions were made after Erik Nystrom’s Intra-Action workshops in the summer of 2025. Erik Nystrom very kindly executed the final mixdown for the extracts played here. Ming Yang will be adding live piano improvisation and effects.

Stellr Leng is a multi-disciplinary artist, writer & poet. She is particularly interested in the social relevance of artistic interventions. Kash K. (Kinara) is a guitarist and electronic musician with a special interest in Sci-Fi Trance and psychedelic transformations in sound.

Naast (2026), Guyshawn Wong

Naast features four agents trained on an identical dataset, exploring their differences in learning through performance in unison. The piece examines the indeterminacy that emerges from statistical learning processes.

Machine learning systems optimise a loss function during training, but their objective is not perfect reproduction of the training data. Rather, a level of imprecision is tolerated to avoid overfitting, preserving the capacity to respond to unseen inputs.

Unlike classical rule-based systems whose behaviours are explicitly specified, machine learning models are learned through stochastic training procedures. As a result, even when trained on identical data, their learned parameters may differ. This gives rise to an interpretive layer in which outputs can vary across instances, shaped by similar yet non-identical internal structures.

Guyshawn Wong is a researcher, sound artist and computer musician who actively investigates the alternative creativity of computational intelligence in sound. Through autonomous musical systems that interact and improvise with human collaborators in multichannel contexts, he explores how human and machine perceptions diverge—shaping distinct artistic interpretations and decisions. His ongoing research has been awarded funding from both Hong Kong Arts Centre and the Konrad Boehmer Foundation (Netherlands).

Born in 1989 Hong Kong, he is currently based in the Netherlands after receiving his Master’s degree at the Institute of Sonology, Royal Conservatoire The Hague. His current artistic interests are centered around computer music and noise, through

algorithmic composition, live coding, and sound installation, exploring musicality in noise within the concepts of music, information, and systems.

Mandlisse Knots, Christopher Haworth and Erik Nyström
Mandlisse Knots is a live performance with two computers that are connected over a network. ‘Knots’ of interference emerge as a Shepard Tone synthesiser is entangled with an algorithm that synthesises waveforms from orbits of the Mandelbrot set.

Christopher Haworth is a musicologist and practice-researcher. His creative work brings methods associated with modernist composition into dialogue with popular electronic music in ways that emphasise the surreal and absurd. Ongoing research projects include methods for using psychoacoustics in composition and spatial audio, notably auditory distortion synthesis (difference tones). His music has been released by Superpang and his research papers have been published by Computer Music Journal, Organised Sound, Leonardo Music Journal and others. In 2025, he is completing a monograph on electronic music and the history of the Cybernetic Culture Research Unit, forthcoming with OUP.

Erik Nyström is a composer of electroacoustic and computer music. Recurring areas of interest in his practice include spatial texture, synthetic sound, generative algorithms, improvisation and posthuman agency. Nyström’s music is performed internationally and released on empreintes DIGITALes. His writings have appeared in journals and conference proceedings including Organised Sound, EContact!, ICMC and NIME. Nyström studied electroacoustic composition with Denis Smalley at City, University of London, where he obtained a doctorate in 2013. During 2015-18 he was Leverhulme Early Career Fellow at BEAST (Birmingham Electroacoustic Sound Theatre), University of Birmingham. He is a Senior Lecturer in Music at City, University of London.

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