

Cica-EMG: Body electricity, electronic music, and neurodiversity

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1 Program Notes

Sensory interfaces and modular synthesizers, the Cica-EMG duo of Robin Dussurget (aka Cicanoise) and Atau Tanaka perform embodied electronic music. Capturing electrical signals from the body, they create visceral sonic landscapes exploring neurodiversity in music. Dussurget is an autistic, wheelchair bound musician who has found personal expression in the ‘Brut Pop’ scene. Tanaka is an interactive music researcher who works with the physiology of the body in computer music performance. Together, the duo has performed over the past 5 years in France at the Sonic Protest and Instants Fertiles festivals, at the JIM computer music conference, and the art school in Aix-en-Provence. They have given workshops to groups of autistic children, sharing their techniques of translating electricity of the body into electronic music. This will be their first duo performance outside of France.



Fig. 1. Robin Dussurget (Cicanoise) in the studio with muscle EMG sensor and modular synthesiser.
Fig. 2. Dussurget (L) and Tanaka (R) in concert at Festival Les Instants Fertiles, Saint-Nazaire France.

2 Project Description

We propose a performance of experimental electronic music exploring neurodiversity and electromyogram muscle sensing. Dussurget is a young French musician who is autistic and has lived with motor control issues of the lower body since birth and is in a wheelchair. Tanaka is a composer and music-human-computer-interaction researcher. Together, they have performed as a duo since 2021 in academic conferences, art schools, and music festivals. They perform using an electromyogram interface, [1], that translates electrical signals of the central nervous system resulting from muscle exertion into MIDI data to articulate sound on electronic musical instruments. Dussurget’s condition means that his dexterity and motor control make traditional musical instrumental practice difficult. By placing EMG electrodes on his arms and patching the system into the modular allows him to gain an

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expressive freedom in performance. Tanaka is an able-bodied musician who has explored the use of embodied interaction technologies for musical performance. He integrates aspects of somatic practices, including yoga, in musical performance via the EMG. Together, Cica-EMG form an electronic duo using gestures to playfully perform experimental electronic sound.

3 Performance Notes

The performance will be approximately 15 minutes duration, and is flexible according to other works on the concert programme. The performance consists of physical gestures from the musicians, one sitting in a wheelchair, the other standing, each controlling sound output from their modular synthesizer.

The two musicians will be on stage next to one another, occupying a space 4x3m. We request a small table for Dussurget to place his synthesizer. Tanaka will bring a stand for his system but may also need a small table. Each system will have a stereo, line level output. We would like to request basic concert lighting illuminating each musician.

The performance venue and stage need to be wheelchair accessible.

4 Media Link(s)

Video (2'00") uploaded to *Supplementary Material* showing:

- Performance at Journées d'Informatique Musicale, Saint-Denis 2023
- Performance at École Supérieures des Arts d'Aix-en-Provence 2024
- Festival Les Instants Fertiles, Saint-Nazaire, 2023

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Ethical Standards

The research leading to the work presented has received ethical approval from the research committees of Goldsmiths University of London according to standards of informed consent established by the ESRC for work in neurodiversity.

References

- [1] Tanaka, A., Fierro, D., Di Maggio, F., Klang, M., & Whitmarsh, S. (2023). The EAVI EXG board: Hybrid physiological sensing. In *Proc. NIME*.