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Contemporary Arts Practice and Outer Space: A Multi-Disciplinary Approach (3)

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EMBRACE THROUGH THE UNIVERSE: SOUND DESIGN WITH COSMIC MUONS AND THE PARAMETERS OF SOLAR WIND

Abstract

Although humans are destined to live in the world of chaos, there is also a hidden beauty within it. Analogically, this implies that there can be a creative way of life through exploring unknown. Considering humans are part of the dynamism of the whole universe that consists of matter and energy, what would it be like if they could feel being embraced through the universe? Having continuous dialogues with an organizer throughout the planning, an artistic performance with the sounds of the universe is presented at the cultural event Connected Ink 2021 in Tokyo. This performance is entitled *Life, the Universe and Everything* in homage to *The Hitchhiker's Guide to the Galaxy* by Douglas Adams.

In this paper, the background, concept, physics, sound design, and the process and result of the project are discussed in collaboration with artists, sound designers, and experimental physicists. Regarding sound design, it has developed based on what the authors have shown through the preliminary sound installation: *Particle Post – Letters from the Universe* in 2019, which poetically designs the signals from cosmic muons that are captured by a scintillation detector. Transforming imperceivable elements of the universe into an appreciable form in a poetic manner is one of the crucial essences of the authors' research and practice. With this, we believe that we will be able to unveil the wonders of the universe aesthetically. Hence, imperceivable elements such as cosmic muons and the parameters of solar wind (density, speed, and temperature in particular) captured from the satellite DSCOVR orbiting the L1 Lagrange point, are taken into the sound system in almost real time. Five iron fuurin, Japanese wind bells ring triggered by cosmic muons that constantly arrive on Earth while the computer-generated sounds of solar wind surround the large space at the venue. This fuurin as a physical instrument makes sounds resonating with an on-site environment. Consequently, these two different kinds of 'wind' sounds create harmony among the space, hoping to create harmony through body and mind of the audience as well. This project also signifies the value of genuine dialogue and communication to deepen an international collaboration, especially during the pandemic over the years, to open up further creation.