

# 2023 CIRMMT Inter-Centre Research Exchange Funding Report

For a research exchange at ICCaT at the University of Liverpool, Department of Music, UK

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## The main purpose of the trip

The purpose of my one-month exchange trip was to collaborate with Dr. Paul Turowski at the Interdisciplinary Centre for Composition and Technology (ICCaT) at the University of Liverpool, from April 17th to May 19th, 2023. The main objective was to revise my composition, *Simulacra*, designed for five cellists and audiovisual media, under Dr. Turowski's supervision. The goal of this residency was to complete the revised version of the piece and showcase it at a concert held at The Tung Auditorium in Liverpool.

*Simulacra* explores a socio-cultural question: What is the form of music that engenders the sense of “authentic” concert experience in an era dominated by simulation? Philippe Auslander (2011) asserts that authenticity in rock and pop music concerts has changed from the performers' actual musicianship to fictional performances—performances that have never existed in reality, but were created with the extensive use of studio production techniques (e.g., lip-synced performances). Drawing on this historical transition of authenticity from actuality to fictionality, my composition proposes the interplay between corporeal performance and audiovisual imagery as a new authentic experience in a concert today.

To this end, during the residency, I focused on creating visual content using Computer Graphics (CG) for the video component, which was integrated with 3D immersive audio. I utilized various techniques related to CG, including mesh and point clouds of 3D models, as well as generative visuals. These techniques allowed me to create visual imagery that is then juxtaposed with the performers' physical presence within the concert space. Additionally, I incorporated a 3D immersive audio rendering system based on ambisonics, utilizing the Max programming environment. I benefited from Dr. Turowski's expertise in audiovisual gamified compositions, as well as the resources available at ICCaT, particularly their emphasis on audiovisual composition.

Throughout the residency, I had a dedicated workspace and access to the Electroacoustic Music Research Studio, which featured a 24.2-channel 3D surround system, as well as the Game Research Lab, equipped with various game engines and controllers. Moreover, I had access to essential equipment such as microphones, monitor speakers, video input/output devices, and a video screen. Dr. Turowski provided regular feedback and guidance, significantly contributing to the completion of the piece.

As part of the revision process, ICCaT offered me the opportunity to collaborate with Teo Deni, an exceptional cellist affiliated with the Riot Ensemble. Before the concert, we had a recording session in London, where we recorded the prerecorded cello parts of the composition. The recording session proved to be extremely productive, thanks to Teo's expertise and the equipment provided by ICCaT. The revised version of the piece was presented at the Riot Ensemble Residency Inaugural Concert on May 5th, 2023, held at the Tung Auditorium in Liverpool.

The performance of the piece was met with a positive response, according to Teo. It was a privilege to witness such enthusiastic and extended applause from the audience, signifying their appreciation of the work.

## **Additional engagements**

In addition to revising my composition, I had the opportunity to actively engage with the vibrant research and educational community at the University of Liverpool.

In terms of research engagement, I collaborated with Dr. Paul Turowski on coauthoring a paper focused on the identification of game elements in gamified screen-score works. Our initial step involved an extensive review of relevant literature to establish a strong theoretical foundation. Subsequently, we examined two specific gamified screen-score pieces, namely "SQ2" by Turowski and "Super Colliders" by myself, aiming to identify the game elements implemented in these compositions. However, during the identification process, we discovered that the existing analytical framework did not encompass all the game elements, particularly in Turowski's "SQ2." Consequently, we envisioned the synthesis of multiple analytical frameworks to create a more comprehensive and robust analytical framework. Due to time constraints, we were unable to complete the paper before my return to Montreal. However, I am optimistic that this ongoing research engagement will evolve into a complete academic paper, which we intend to publish at a relevant conference, such as the TENOR conference in 2024.

Regarding educational engagement, I was granted the opportunity to deliver a presentation on my works as part of the ICCaT workshop series. The ICCaT workshop series serves as a platform for students and faculty members to share their research-creation projects. During the workshop, I provided a detailed introduction to three of my compositions, including their conceptual background, approach, and realization techniques. The audience demonstrated particular interest in my diverse compositional approaches, such as the incorporation of audiovisual content, the application of gamification concepts, and the utilization of gestural controllers. It was gratifying to witness their enthusiasm and engagement with my creative processes during the workshop.

## **Acknowledgments**

I would like to extend my deepest gratitude to Dr. Paul Turowski and the entire ICCaT facility team for hosting me during my one-month residency in Liverpool. Their support, guidance, and access to the resources at ICCaT were instrumental in the success of this research exchange.

I would also like to acknowledge and express my sincere appreciation to my sponsor at CIRMMT, Prof. Sean Ferguson, for his invaluable support throughout this endeavor. His belief in this project and his commitment to fostering research and innovation played a pivotal role in making this exchange possible.

Furthermore, I would like to thank CIRMMT as an organization for their financial support and encouragement in advancing interdisciplinary research and collaboration in music, technology, and the arts.

Lastly, I am grateful to all the individuals who supported me during this journey, including colleagues, friends, and family, for their encouragement and belief in my work.