End of award report – Agile seed grant (Krishna, Dalla Bella, Marandola)

The Agile seed fund was used to purchase the following items:

a) a short-latency gaming monitor to examine the role of audio-visual correspondence between different dimensions. A Masters student Noa Kemp has joined the project in September 2023, and she will work on this project as part of her thesis work supervised by Suresh Krishna with fellow CIRMMT member Catherine Guastavino. Noa has also just put in a FRQSC proposal based partly on this project.
b) Partial payment towards a lens-set to facilitate use of the CIRMMT Tobii Pro Glasses 3 with participants who normally wear spectacles. This lens-set will also be made available to other CIRMMT members whenever possible. The rest of the cost of the lens set was paid from Suresh Krishna's research funds.

After the Agile seed fund was granted, the project received additional funds from:

a) The McGill VPRI office's SSHRC internal grant – 5000 CAD.
b) A CIRMMT student award of 7000 CAD to Amanda Pruss and Yohail-Eliel Berreby, who are both Masters students in Suresh Krishna's lab. Anais Rubsamen and Ula Goldstein were additional undergraduate participants in this grant. This award enables the proposed project to continue until May 2024, at which time we expect to have detailed results from this project.

Project status: We have recruited two highly motivated students, both of whom have several years of musical training (in piano and bass guitar). One is a McGill undergraduate in psychology and the other is a McGill graduate who is now doing his Masters in music therapy at Concordia. We have collected some detailed samples from pianists performing piano pieces (annotated by an expert for different levels of right and left hand keying difficulty) while their eyes are being tracked, in order to validate the equipment and synchronization etc. Following the analysis of this data, we will record our first formal set of pilot data in November, and then proceed to the remaining parts of the project. With the help of a music composition student at McGill as well as several other CIRMMT members, we are also designing a library of carefully designed piano pieces with different levels of keying difficulty in either hand in order to examine specific hypotheses regarding eye-hand co-ordination during the preparation and execution of these designed pieces. We expect that we will have our first set of results in time for COBS 2024 and these will also serve as pilot data for a SSHRC grant application.