

MOTION CAPTURE FOR PERFORMANCE ANALYSIS AND INTERACTIVE APPLICATIONS

DOMINANTE DE LA JOURNEE (KEYNOTE)

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Movements and gestures are an integral part of music performance. Musicians playing acoustic instruments or digital musical instruments make a variety of movements that are either essential or ancillary to the production of sound, contributing to the experience of the performer as well as to the way and audience perceives the music.

In this talk I will discuss various research projects at the Input Devices and Music Interaction Laboratory (IDMIL) at McGill University dealing with the measurement of movement in music performances, focusing on motion capture of a variety of instruments (e.g. clarinet, violin, timpani) as a means to a) quantify the movements present in performance with acoustic and digital musical instruments, b) evaluate the repeatability of ancillary performer movements, c) create pedagogical tools to improve the learning of musical instruments, and d) provide control data for the synthesis of a virtual musician (timpanist).

Examples will be provided to illustrate the benefits (and limitations) of this approach.