



Conductors put their best efforts to make gestures for portraying the imagined-ideal, along with the innermost concept of a musical piece and a composers implication. Since a conductor uses his/her gestures in order to communicate and interact with every performer in a symphony to characterize the quality of the piece performed, their gestures should be considered another sort of symbolic, embodied language which contains a high bandwidth of information. In this project, we present a novel way of visualizing the expressiveness in conducting gestures by synthesizing two approaches. The first one is a visualization method that aims to enable a robust amplification of a conductors gestures by using the optical flow and 2D fluid simulation with a particle generating system. The other is a machine learning approach that enables us to track the conductors gestures with the two hands and classify them into the three fundamental factors of movement, such as the Weight, Space, and Time, from the perspective of Laban Movement Analysis(LMA) theory. The visualization captures the real time video of the conductor and processes it through the visualization algorithms to generate 128,000 particles per frame to depict the expressiveness of the conductors gestures, which is being characterized by the motion

factors. With this interactive visualization, a general audience will be invited to perform their own conducting gestures to witness the expressivity revealed in gestures on the fly.