Pop-E: a performance rendering system for the ensemble music that considered group expression

Mitsuyo HASHIDA, Noriko NAGATA, and Haruhiro KATAYOSE

This paper proposed a musical performance-rendering model, called Pop-E, for expressive ensembles: homophonic and polyphonic music. Polyphonic music has to be synchronized after the independent expression of each voice. Pop-E gives phrasing expressions to each part and has a means to align the timings of the parts according to the group structure and the "attentive" parts of the performance (attentive refers to parts that naturally draw the listeners attention). The paper describes how the middle part of a Pop-E performance of Chopin's "Fantasie-Impromptu" that received an award at NIME-Rencon was rendered. This paper also discusses the description ability of Pop-E, based on the reconstruction of three human performances of the piece. The experimental listening evaluation and reconstruction of the human performances suggested that Pop-E was able to render natural performances with a small set of performance rules.