Jam'aa

Gil Weinberg

J*am'aa* is an interactive composition for a group of human percussionists and a robotic drummer. The robot, named Haile, is designed to listen to live players, analyze their drumming in real-time, and use the product of this analysis to play back in an improvisational manner. It is designed to combine the benefits of computational power and algorithmic music with the richness, visual interactivity, and expression of acoustic playing. In *Jam'aa*, Haile listens to and interacts with two humans playing Darbukas, Middle Eastern goblet-shaped hand drums. Haile listens to audio input via a microphone installed on each drum, detecting aspects such as note onset, pitch, amplitude, tempo, and rhythmic density. Based on these detected features, it utilizes six interaction modes that are designed to address the unique improvisatory aesthetics of the Middle Eastern percussion ensemble. Haile responds physically by operating its mechanical arms, adjusting the sound of its hits in two manners: pitch and timbre variety are achieved by striking the drum head in different locations while volume variety is achieved by hitting harder or softer. We believe that when collaborating with live players in *Jam'aa*, Haile can facilitate a musical experience that is not possible by any other means, inspiring players to interact with it in novel expressive manners.

http://www-static.cc.gatech.edu/~gilwein/Jamaa.htm

ATT

Georg Holzmann

ATT, acoustical table tennis, is a mixture of a performance and an audiovisual installation for two, 8 or 12 speakers spread over the room, one table tennis ball, a video projector and a computer. The sound materials are live sampled table tennis balls and the composition rules are derived from table tennis rules. The speakers are divided into two players (one player at the right, one at the left side, see picture 2) and they are controlled via specific probability functions (markov chains). The game is over if one player reaches 21 points (like in the original game rules). The current points of the players are displayed very large with a video projector. As an additional dimension the room/place comes into the game: With the 12 speakers the table tennis field is enlarged, and the listeners can walk through this field hearing the "acoustical balls" flying from one player to the other. In contrast to the "real" table tennis, more and more balls are sampled and thrown into the game. So a very complex sound network becomes spread over the whole room/place. The exciting thing: You never know in advance which player wins and how much time he will need to eliminate the adversary!

http://grh.mur.at/projects/att.html