

Music Improvization with Aurora

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Some music has been adopted natural phenomena as sources of inspiration since the dawn time of the civilization; "The Planets" by G. Holst is a famous piece of example based on astronomical phenomena. This type of music is composed by a human being after all, and not directly based on physical data from the space.

On the other hand, attempts have been made to translate astronomical phenomena into music. Johannes Kepler invented a series of tunes titled "music of the spheres"; each tune corresponds to the orbit of each planet. In the past few decades, there come a number of projects that transforms astronomical data into musical sounds, thanks to the development of computer technology. However, these music tunes are prone to end up with some mechanical abstractions because they were made automatically from some transform rules, and no or little human factor play a role there.

In our project, we try to provide music by human improvisation in response to physical data of aurora, such as magnetic field or visible light. A skilled jazz musician can play high artistic music instantly in response to outer stimulation, which may be based on auroral data. The outline of the coming project will be presented at the meeting.

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