

ISE 599 Paper Review

Title: Performance and Interpretation

Author: Guerino Mazzola and Stefan Goller

Reviewer: Jie Liu

This paper talks about the performance and interpretation, from a very different but interesting point of view. The structure of this paper is a little different from other papers. It is made up of 17 small parts and every part talks about a small but related topic.

The authors mentioned that 'More generally speaking, performance may be viewed as a transformation of any abstract symbolic data into its sensorial representation in the ordinary human space-time'. I think this is the basic point of this paper and the authors were trying to explain and prove it in every part of the paper. The authors first gave an introduction, by talking about the supervision and control in music. They claimed that sound control is quite different from performance. In the first case, music is controlled by the performer, while in the latter case, the performer is 'played' by music. They mentioned that "It is the music which plays you, when it really lives", '...one just participates in a deep reality of a spiritual extent which is far from controllable'. I think here they want to emphasize that in performance, the technical skill is presupposed and it is a low-level control. The high-level control is on the 'spiritual' level.

I like the authors' ideas about what performance is, 'Artistic performance is the physical execution of a work of art.' 'The point of performance is that its added value depends on the way of executing the symbolic data'. I agree that performance is first a physical execution, conveying the performer's interpretation and it is non-reproducible. The authors also mentioned that 'A work needs an infinite number of performances to achieve its complete understanding', which I also agree with. I think the 'perfect' performance for a work of art does not exist, because there won't be a perfect performance that can satisfy all the people.

Then they talked about the performance theory. The performance theory could be splitted into two main concerns: structure theory and semantic theory. The structure theory is relatively straightforward because it deals with the precise description of a given performance, which I think doable. For example, we can get all the onset time, all the durations of the notes, all the loudness data and so on. However, the semantic theory is harder. The authors said that there are three main rationales for performance: emotion, gesture and ratio. We have read a lot of papers talking about the performance and emotion, and I also get the idea which is mentioned in this paper: 'Presently, there is no hope for a realistic and exhaustive description of emotions'. I think this is an obstacle for doing the research of music and emotion.

In the latter parts, a mathematical model is given and I had a hard time understanding it. The authors proposed a mapping from the symbolic space to the physical space, which is straightforward. However, the Jacobian matrix and the invertible differentiable map are confusing. I would like to see an example here showing how to derive those mathematical formulations in this paper.

There are also some other interesting statements in this paper. For example, the authors mentioned that 'If a specific performance can be produced without any systematic insight, it is useless' and 'Performance research is the search for systems which generate "interesting" performances. refer to human appreciation and is beyond scientific determination'. I would like to raise a question here on how to define the word 'interesting'. It is true that performances from famous pianists are different, but all of them are considered as 'interesting'. Hence, performances are different if the performers are different, but they seem share some commonalities, for example, being 'interesting'.

I was impressed by the visual representation of performance shown in this paper. The way they used 3D space and Pinocchio pictures to represent multiple features of performance is creative. I was even shocked to see that they can use one picture to represent a library, which is shown in Fig. 5. I would like to see a demo of this visualization tool, to find out some details.

I would say I like this paper, because it is full of smart ideas and philosophical statements, such as 'Knowledge is ordered access to information' and 'Performance means the transformation of a priori abstract data into a sensorial environment of human space-time'. I was impressed by this new and different point of view and I also would like to do more work understanding their mathematical model. However, this paper is too intense to read.