



基于色度特征和动态时间卷曲算法的音频与乐谱对位

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- 摘要
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摘要 提出基于色度特征和动态时间卷曲算法,实现MIDI、MusicXML两种乐谱格式与WAV、MP3两种音频格式间的对位,并使用真实录音作为音频进行实验,采用人工标注正确时间的方式评估结果,使得对算法效果的评价更接近现实情况。实验结果显示该算法基本能够达到预期效果。

关键词: 音频与乐谱对位 色度特征 动态时间卷曲算法

Abstract: This paper accomplishes the alignment between two kinds of score format—MIDI and MusicXML, and two kinds of audio format—WAV and MP3 based on chroma features and dynamic time warping algorithm. In addition, in the process of experiment and evaluation, this paper uses historical recordings as audio materials and labels the ground truth of measures manually in order to know the true effect of the algorithm in real world. The results of the experiment show that the algorithm has achieved the desired effect basically.

Keywords: Audio to score alignment, Chroma features, DTW algorithm

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