Temperament Estimation as an MIR task

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Abstract

Tuning and temperament have been occupying musical and scientific minds for many centuries. Towards the end of the twentieth century, as historical performance practice was gradually becoming an established part of mainstream musical activity, more attention has been directed to the study and application of historical unequal temperaments. We have recently presented experimental results demonstrating that it is possible to classify keyboard temperament automatically from recordings of typical harpsichord pieces (Tidhar, Mauch, & Dixon, 2010). Six different commonly-used temperaments have been accurately recognised in a dataset consisting of 48 recordings. In (Tidhar, Fazekas, Mauch, & Dixon, 2010) we present TempEst, an online temperament estimation service based on components developed within the OMRAS2 project [2]. TempEst employs the estimation algorithms developed in (Tidhar, Mauch, & Dixon, 2010), enhanced by a Temperament Ontology ((Fazekas & Tidhar, 2009)) and an additional inference module. We are currently working on improving and extending the ontology and inference components, and on applying the temperament estimation method to larger collections of commercially available recordings. In this late-breaking presentation we will briefly provide some background to the temperament estimation project, present the current state of the Temperament Ontology, discuss the nature of temperament estimation as an MIR task, and present some initial results of the analysis of commercially available harpsichord recordings.

References

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[2]http://www.omras2.org