

# Measures , that distinguish Inspiration from Plagiarism Using Melodic Similarity in Music Information Retrieval

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## Abstract

As it becomes ever more easy to produce music from one's own home, the challenge of detecting plagiarized parts becomes more important. Detection of such plagiarism through subjective reasoning is a time consuming effort and must inevitably be replaced by automatized solutions. The problem of detecting such plagiarisms is strongly connected to determining similarity between two pieces by means of music similarity approaches. Detection of plagiarized works is based on the state-of-the-art techniques of music similarity. Not every approach in music similarity is however useful , since music similarity is a broader term than fetching related songs based on their melody , rhythm and so on. The main emphasis of this paper is to explore the ways in deciding whether two pieces are similar, what metrics can be used to do so and how appropriate the different approaches are. Due to melodic similarities usually being the deciding factor in plagiarism cases, since the melody is the most important aspect in a song for the human ear **Citation needed** , we will focus on melodic similarity detection similarities.

## Outline

## Introduction

## Audial Approaches

### Techniques : MFCC

A crucial method for comparing two songs is to calculate their MFCC representations and compare them via a metric. We will explain how MFCC works.

**Fluctuation Patterns**

**How They Are Related To**

**Timbre Similarity**

**Melodic Similarity**

**Rhythmic Similarity**

**Text-based approaches**

**Melodic Similarity**

**Rhythmic Similarity**

**Conclusion**