

TPA 10: Automatic Guitar Transcription

Problem Statement: Guitar tablature (tabs) is a method of representing sequences of guitar notes as text. Each note corresponds to a particular fret/finger position, which will be indicated in the tabs. This project aims at creating a system which reads guitar videos and transcribes them to tabs automatically.

Input:

- Video shots containing a person playing a guitar.

Expected Output:

- Text file with the corresponding tabs for the music.

References

1. Anne-Marie Burns, Marcelo M. Wanderley, Visual methods for the retrieval of guitarist fingering, *New interfaces for musical expression*, 2006
2. Scarr, J.; Green, R., Retrieval of guitarist fingering information using computer vision, *Image and Vision Computing New Zealand (IVCNZ)*, 2010
3. Kerdvibulvech, C.; Saito, H., Vision-Based Detection of Guitar Players' Fingertips Without Markers, *Computer Graphics, Imaging and Visualisation*, 2007.
4. C. Kerdvibulvech and H. Saito. Real-Time Guitar Chord Estimation by Stereo Cameras for Supporting Guitarists. *International Conference on New Interfaces for Musical Expression*, 2005.