

## Main Melody Extraction for Polyphonic Music

We propose an approach to main melody extraction from multi-track polyphonic MIDI files. In each track of a MIDI file, the system traces the pitch contour of the polyphonic music, and describes it in a monophonic form. In each of these contours, maximal repeating patterns are found using a correlative matrix. All of these patterns are then collected in a dictionary, with which we can find the set of all maximal repeating patterns with no redundancy called the main melody. The main melody extraction results and how well these extracted main melodies can improve the work on content-based music retrieval are given and described.