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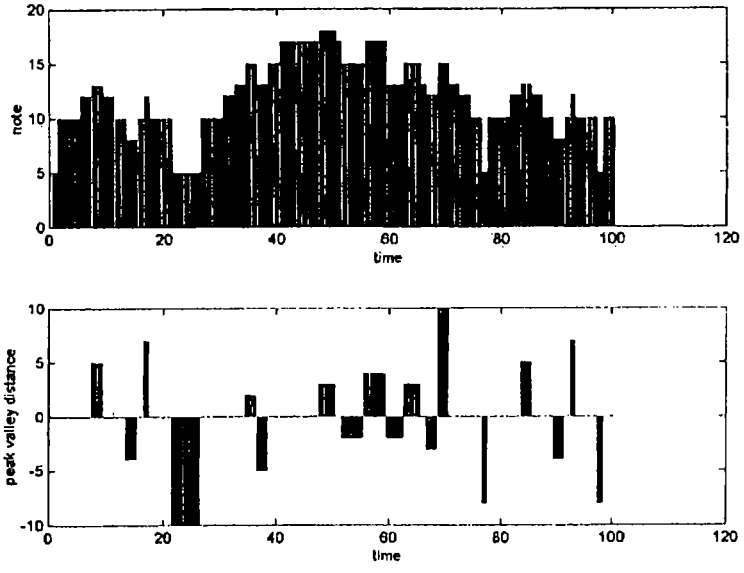
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(54) Title: METHOD AND SYSTEM OF REPRESENTING MUSICAL INFORMATION IN A DIGITAL REPRESENTATION FOR USE IN CONTENT-BASED MULTIMEDIA INFORMATION RETRIEVAL



Score Melody Processing

(57) Abstract: The invention relates to content-based audio/musing retrieval and other content-based multimedia information retrieval. In one aspect the present invention provides a method of representing audio/musical information in a digital representation suitable for use in content-based information indexing and retrieval including the steps of: determining a first representation including a set of peaks and valley corresponding to maximum and minimum values respectively of at least one characteristic of the audio/music, and; determining a second representation including values representing relative differences between peaks and valleys. The invention presents a method and a system for content-based music retrieval. A musing score database is constructed to provide a unique representation of real music songs. Score keywords are extracted from the music score as the features of the musing songs. This invention also provides a method to automatically convert the queries inputted by humming into query keywords. The extracted query keywords will be matched with the existing score keywords in the music score database to retrieve the relevant music songs. Since there is an exact correspondence between the music scores and actual music songs, the retrieval accuracy will be greatly improved compared with other low-level feature based music retrieval methods.

WO 03/005242 A1

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