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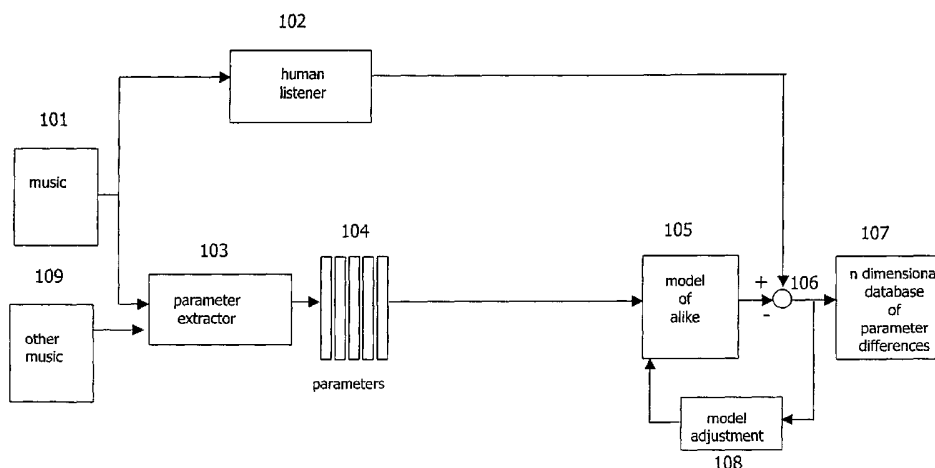
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[Continued on next page]

(54) Title: FINDING PERCEPTUALLY SIMILAR MUSIC WITH PRECOMPUTATION



(57) Abstract: A system is disclosed which allows people who enjoy listening to musical recordings to find new musical recordings that are similar target musical recording. The system uses a model of alikeness (105) which is based upon empirical observations of human perception of likeness between pairs of songs. The humans judge a representative sample of music (101) to build the model (105). Then other musical recordings (109) are applied to this system which extracts parameters (104) from the content of each recording and applies them to the model (105) to compute the differences between the parameters of the new recording and parameters developed for the model to place them in a data base of parameter differences (107). By allowing a user to select one of the recordings from the data base for which parameters have already been extracted, the system can efficiently work with a large number of recordings. A further efficiency improvement is achieved by precomputing differences between the target recording and other typical recordings within the data base. A large data base is efficiently managed by partitioning the data base into clusters.



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## INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 918 223 A (KEISLAR DOUGLAS F ET AL) 29 June 1999 (1999-06-29) column 2, line 52 -column 4, line 13 column 5, line 50 -column 6, line 52 column 17, line 9 -column 23, line 31 -----	1-42
A	FOOTE J T: "Content-based retrieval of music and audio" PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA, US, vol. 3229, 3 November 1997 (1997-11-03), pages 138-147, XP002154737 the whole document -----	1-42

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*G\* document member of the same patent family

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### Information on patent family members

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