

Title (en)

DEVICE FOR THE ANALYSIS OF AN AUDIO SIGNAL WITH REGARD TO THE RHYTHM INFORMATION IN THE AUDIO SIGNAL USING AN AUTO-CORRELATION FUNCTION

Title (de)

VORRICHTUNG ZUM ANALYSIEREN EINES AUDIOSIGNALS HINSICHTLICH VON RHYTHMUSINFORMATIONEN DES AUDIOSIGNALS UNTER VERWENDUNG EINER AUTOKORRELATIONSFUNKTION

Title (fr)

DISPOSITIF POUR L'ANALYSE D'UN SIGNAL AUDIO CONCERNANT DES INFORMATIONS DE RYTHME DE CE SIGNAL A L'AIDE D'UNE FONCTION D'AUTO-CORRELATION

Publication

EP 1371055 A2 20031217 (DE)

Application

EP 02742987 A 20020510

Priority

- DE 10123281 A 20010514
- EP 0205171 W 20020510

Abstract (en)

[origin: US2004094019A1] An apparatus for analyzing an audio signal with regard to rhythm information of the audio signal by using an autocorrelation function comprises a filter bank for separating the audio signal into at least two sub-band signals. The sub-band signals are examined with regard to periodicities by an autocorrelation function, to obtain rhythm raw-information for the at least two sub-band signals. To reduce or eliminate the ambiguities of the autocorrelation function for periodical signals, the rhythm raw-information is postprocessed to obtain post-processed rhythm raw-information for the sub-band signal. The rhythm information of the audio signal is established based on the postprocessed rhythm raw-information. By the sub-band-wise ACF postprocessing, ACF ambiguities are already eliminated where they originate, and rhythm portions are added at double tempi, which an autocorrelation function processing does normally not provide, so that, as a result, a more robust determination of the rhythm information of the audio signal arises.

IPC 1-7

G10H 1/40

IPC 8 full level

G10H 1/40 (2006.01); **G10L 19/02** (2013.01); **G10L 25/06** (2013.01); **G10L 25/90** (2013.01)

CPC (source: EP US)

G10H 1/40 (2013.01 - EP US); **G10L 19/0208** (2013.01 - EP US); **G10H 2210/076** (2013.01 - EP US); **G10H 2250/135** (2013.01 - EP US); **G10L 25/06** (2013.01 - EP US); **G10L 25/90** (2013.01 - EP US)

Citation (search report)

See references of WO 02093550A2

Cited by

WO2005071662A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

US 2004094019 A1 20040520; US 7012183 B2 20060314; AT E294440 T1 20050515; DE 10123281 C1 20021010; DE 50202914 D1 20050602; EP 1371055 A2 20031217; EP 1371055 B1 20050427; ES 2240762 T3 20051016; WO 02093550 A2 20021121; WO 02093550 A3 20030227

DOCDB simple family (application)

US 71369103 A 20031114; AT 02742987 T 20020510; DE 10123281 A 20010514; DE 50202914 T 20020510; EP 0205171 W 20020510; EP 02742987 A 20020510; ES 02742987 T 20020510