

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  
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Application  
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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)

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