

Title (en)  
AUDIO PLAYBACK SYSTEM AND METHOD FOR PLAYING BACK AN AUDIO SIGNAL

Title (de)  
AUDIOWIEDERGABESYSTEM UND VERFAHREN ZUM WIEDERGEHEN EINES AUDIOSIGNALS

Title (fr)  
SYSTEME DE RESTITUTION AUDIO ET PROCEDE DE RESTITUTION D'UN SIGNAL AUDIO

Publication  
**EP 1576847 B1 20060419 (DE)**

Application  
**EP 03782222 A 20031121**

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• EP 0313110 W 20031121

Abstract (en)  
[origin: WO2004047485A1] An audio playback system is divided into a central wavefield synthesis module (10) and a multitude of decentrally arranged loudspeaker modules (12a-12e). Synthesis signals for the individual loudspeakers and corresponding items of channel information, which are assigned to the synthesis signals, are calculated in the central wavefield synthesis module. The synthesis signals for a loudspeaker together with associated items of channel information are then transmitted to corresponding loudspeaker modules via a transmission link (16a-16e). Each loudspeaker module receives the synthesis signals and associated items of channel information that are intended for the loudspeaker assigned to the loudspeaker module. A decentralized audio rendering and digital-to-analog conversion takes place inside the loudspeaker modules in order to decentrally generate the actual analog loudspeaker signals in spatial proximity to each loudspeaker. The division into a central wavefield synthesis module and a multitude of decentralized loudspeaker modules enables the production of audio playback systems that can be scaled with regard to price in order to offer different size systems, which can be scaled in terms of price, for, in particular, cinema playback spaces that vary greatly in size.

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