Title (en)

Reproduction of a sound field in a target sound area

Title (de)

Wiedergabe eines Schallfeldes in einem Zielbeschallungsbereich

Title (fr)

Reproduction d'un champ sonore dans une zone de sonorisation ciblée

Publication

EP 2469892 A1 20120627 (DE)

Application

EP 10176848 A 20100915

Priority

EP 10176848 A 20100915

Abstract (en)

The method involves analytically determining a drive signal for electro-acoustic transducer corresponding to sound field which is to be reproduced in a target acoustic region below spatial aliasing frequency of sound. The drive signal is changed by spatial band-limiting, so that the sound is reproduced within a range of optimization with higher accuracy and the modified drive signal to the electro-acoustic transducer. An independent claim is included for apparatus for reproducing sound in target acoustic region.

Abstract (de)

Es wird ein Verfahren und eine Vorrichtung zur Wiedergabe eines Schallfeldes in einem Zielbeschallungsbereich bereitgestellt. Hierfür werden auf einer Kontur am Rande oder im Zielbeschallungsbereich elektroakustische Wandler, also Lautsprecher, angeordnet. Zunächst wird ein Ansteuersignal für die elektroakustischen Wandler analytisch bestimmt. Bei dieser analytischen Bestimmung ergibt sich ein resultierendes Schallfeld, das dem wiederzugebenden Schallfeld unterhalb einer bestimmten Frequenz genau entspricht. Oberhalb dieser Frequenz treten an allen Orten Abweichungen auf, was der analytischen Bestimmung inhärent ist. Das so ermittelte Ansteuerungssignal wird derart geändert, dass ein Bereich entsteht, in dem das resultierende Schallfeld dem wiederzugebenden Schallfeld genauer entspricht, als dies ohne diese Änderung der Fall wäre. Dies kann beispielsweise mittels einer räumlichen Bandbegrenzung der Ansteuerungssignale der elektroakustischen Wandler erfolgen. Das geänderte Ansteuerungssignal wird den elektroakustischen Wandlern zugeführt. Ferner wird eine Vorrichtung zur Wiedergabe eines Schallfeldes in einem Zielbeschallungsbereich bereitgestellt.

IPC 8 full level

H04S 7/00 (2006.01)

CPC (source: EP)

H04S 7/302 (2013.01); H04S 7/303 (2013.01)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

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BA ME RS

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