

Title (en)  
DELAYED AUDIO FOLLOWING

Title (de)  
VERFOLGUNG EINES VERZÖGERTEN AUDIOSIGNALS

Title (fr)  
SUIVI D'AUDIO RETARDÉ

Publication  
**EP 4104457 A4 20230719 (EN)**

Application  
**EP 21754163 A 20210212**

Priority  
• US 202062976986 P 20200214  
• US 2021017971 W 20210212

Abstract (en)  
[origin: WO2021163573A1] Disclosed herein are systems and methods for presenting mixed reality audio. In an example method, audio is presented to a user of a wearable head device. A first position of the user's head at a first time is determined based on one or more sensors of the wearable head device. A second position of the user's head at a second time later than the first time is determined based on the one or more sensors. An audio signal is determined based on a difference between the first position and the second position. The audio signal is presented to the user via a speaker of the wearable head device. Determining the audio signal comprises determining an origin of the audio signal in a virtual environment. Presenting the audio signal to the user comprises presenting the audio signal as if originating from the determined origin. Determining the origin of the audio signal comprises applying an offset to a position of the user's head.

IPC 8 full level  
**G06F 3/01** (2006.01); **H04R 5/00** (2006.01); **G06F 3/16** (2006.01); **H04S 7/00** (2006.01)

CPC (source: EP US)  
**G06F 3/011** (2013.01 - EP); **H04S 7/304** (2013.01 - EP US); **H04S 2400/01** (2013.01 - EP US); **H04S 2400/11** (2013.01 - EP US)

Citation (search report)  
• [X] US 2019268711 A1 20190829 - MOELLER JONATHAN [US]  
• [X] US 2011293129 A1 20111201 - DILLEN PAULUS HENRICUS ANTONIUS [NL], et al  
• [X] US 2019335290 A1 20191031 - LAAKSONEN LASSE [FI], et al  
• [X] US 2019335288 A1 20191031 - LATYPOV RAY [US], et al  
• See also references of WO 2021163573A1

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 RS SE SI SK SM TR

DOCDB simple family (publication)  
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DOCDB simple family (application)  
**US 2021017971 W 20210212**; CN 202180027858 A 20210212; EP 21754163 A 20210212; JP 2022548902 A 20210212