

Search history

Search 1: binaural sound and capture (Results 140)
Search 2: binaural (Results 5823)
Search 3: 1 and ear* (Results 131)
Search 4: 3 and (transducer* or microphone*) (Results 122)
Search 5: 4 and (face or head or facial) (Results 97)
Search 6: 6 and PD < 20160506 (Results 1000000)
Search 7: 5 and PD < 20160506 (Results 64)

Title: SOUND LOCALIZATION FOR AN ELECTRONIC CALL

Abstract: Source: US2015373477A [EN] During an electronic call between two individuals, a sound localization point simulates a location in empty space from where an origin of a voice of one individual occurs for the other individual.

Classifications:

International (IPC 8-9): H04M1/60 H04M1/725 H04M3/533 H04M9/08 H04R5/027 H04R5/033 H04R5/04 H04S1/00 H04S3/00

H04S7/00 (Advanced/Invention);

G10L21/028 (Advanced/Non-invention)

CPC: H04R27/00 H04R2227/003 H04M1/72572 H04M3/53366

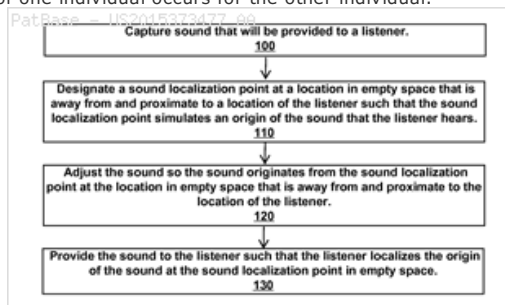
H04R5/04 H04R5/033 H04M3/568 H04M9/085 H04S2400/11

H04S2420/01 H04M1/6033 H04M1/605 H04S1/007 H04S2400/15

H04R5/027 G10L21/028 H04S7/303 H04S7/305 H04S3/008

H04S2400/01 H04S1/002 H04S7/304

US: 1/1 379/420.02 381/303 455/412.1 455/418 455/569.1



Family:

Publication number	Publication date	Application number	Application date
US2015373477 AA	20151224	US20140311532	20140623
US2016080577 AA	20160317	US20150946806	20151120
US2016150064 AA	20160526	US20160011563	20160131
US2016227341 AA	20160804	US20160096352	20160412
US2016381485 AA	20161229	US20160259072	20160908
US2017086006 AA	20170323	US20160367186	20161202
US2017156013 AA	20170601	US20170430549	20170213
US2017164129 AA	20170608	US20170441199	20170223
US2017272880 AA	20170921	US20170610640	20170601
US2017303061 AA	20171019	US20170635224	20170628
US2017339508 AA	20171123	US20170674960	20170811
US2017339509 AA	20171123	US20170674998	20170811
US2018035237 AA	20180201	US20170728527	20171010
US2018035238 AA	20180201	US20170729681	20171011
US2018084366 AA	20180322	US20170813190	20171115
US2018091925 AA	20180329	US20170813187	20171115
US2018098176 AA	20180405	US20170813200	20171115
US9226090 BA	20151229	US20140311532	20140623
US9282196 BA	20160308	US20150946806	20151120
US9344544 BA	20160517	US20160011563	20160131
US9445214 BB	20160913	US20160096352	20160412
US9532159 BA	20161227	US20160259072	20160908
US9615190 BA	20170404	US20160367186	20161202
US9674628 BA	20170606	US20170441199	20170223
US9681245 BA	20170613	US20170430549	20170213
US9769584 BA	20170919	US20170610640	20170601
US9794723 BA	20171017	US20170635224	20170628
US9813836 BA	20171107	US20170674960	20170811
US9832588 BA	20171128	US20170674998	20170811
US9918178 BB	20180313	US20170728527	20171010

Priority:

US20140311532 20140623	US20150946806 20151120	US20160011563 20160131
US20160096352 20160412	US20160259072 20160908	US20160367186 20161202
US20170430549 20170213	US20170441199 20170223	US20170610640 20170601
US20170635224 20170628	US20170674960 20170811	US20170674998 20170811
US20170729681 20171011	US20170728527 20171010	US20170813190 20171115
US20170813187 20171115	US20170813200 20171115	

Probable Assignee: LYREN PHLP SCOTT

Assignee(s): (std): LYREN PHILIP SCOTT ; LYREN PHLP SCOTT ; NORRIS GLEN A ; NORRIS GLEN A

Inventor(s): (std): LYREN PHILIP SCOTT ; LYREN PHLP SCOTT ; NORRIS GLEN A ; NORRIS GLEN A

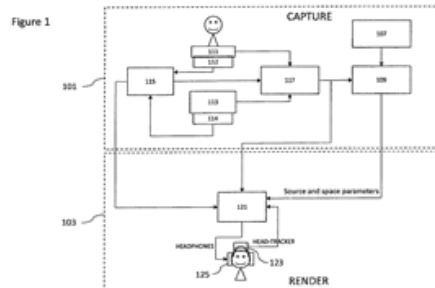
Title: DISTRIBUTED AUDIO **CAPTURE** AND MIXING

Abstract: Apparatus (103) comprising a processor configured to: receive a spatial audio signal associated with a **microphone** array (211) configured to provide spatial audio **capture** and at least one additional audio signal associated with an additional **microphone** (111), the at least one additional **microphone** signal having been delayed by a variable delay determined such that the audio signals are time aligned; receive a relative position between a first position associated with the **microphone** array (211) and a second position (111 (0), 111 (t)) associated with the additional **microphone** (111); generate at least two output audio channel signals by processing and mixing the spatial audio signal and the at least one additional audio signal based on the relative position between the first position and the second position such that the at least two output audio channel signals present an augmented audio scene.

Classifications:

International (IPC 8-9): G01S3/808 G01S5/02 G01S5/20 G06F3/01 G06F3/16 G10H1/00 G10K1/26 G10K11/00 G10K11/35 G10L19/008 G10L21/0308 H04H6/04 H04N13/00 H04N13/02 H04N13/04 H04N21/233 H04N5/225 H04R1/28 H04R1/40 H04R23/02 H04R29/00 H04R3/00 H04R5/00 H04R5/027 H04S3/00 H04S7/00 (Advanced/Invention); G01H7/00 G06F3/01 G06F3/0482 G06K19/07 G06K7/10 G10L21/0216 H04N1/40 H04N21/218 H04N21/222 H04N21/2387 H04N7/00 H04R5/027 (Advanced/Non-invention)
CPC: H04R2430/20 H04S2400/11 H04S2420/01 H04S7/303 H04S7/306 H04S2400/15 G06K7/10 G06K19/0723 G06F3/0482 G10H2220/106 G10H2220/111 H04H6/04 H04R29/00 H04S7/40 H04S7/302 H04R1/406 H04R2201/401 H04R3/00 H04R5/027 H04R2430/00 H04S7/304 H04R2420/07 H04R2460/07 H04S5/00 H04S2400/01 H04R3/005 H04R2430/23 H04S7/00 H04S7/30

PatBase - WO17064367_A1



Family:

Publication number	Publication date	Application number	Application date
GB201511949 A0	20150819	GB20150011949	20150708
GB201512046 A0	20150819	GB20150012046	20150709
GB201513198 A0	20150909	GB20150013198	20150727
GB201518023 A0	20151125	GB20150018023	20151012
GB201518025 A0	20151125	GB20150018025	20151012
GB201521096 A0	20160113	GB20150021096	20151130
GB201521098 A0	20160113	GB20150021098	20151130
GB201521102 A0	20160113	GB20150021102	20151130
GB2540175 A1	20170111	GB20150011949	20150708
GB2540199 A1	20170111	GB20150012046	20150709
GB2540224 A1	20170111	GB20150021096	20151130
GB2540225 A1	20170111	GB20150021098	20151130
GB2540226 A1	20170111	GB20150021102	20151130
GB2542112 A1	20170315	GB20150013198	20150727
GB2543275 A1	20170419	GB20150018023	20151012
GB2543276 A1	20170419	GB20150018025	20151012
WO17005975 A1	20170112	WO2016FI50491	20160705
WO17005977 A1	20170112	WO2016FI50493	20160705
WO17005978 A1	20170112	WO2016FI50494	20160705
WO17005979 A1	20170112	WO2016FI50495	20160705
WO17005980 A1	20170112	WO2016FI50496	20160705
WO17005981 A1	20170112	WO2016FI50497	20160705
WO17064367 A1	20170420	WO2016FI50705	20161007
WO17064368 A1	20170420	WO2016FI50712	20161011

Priority:

GB20150011949 20150708	GB20150012046 20150709	GB20150018025 20151012
GB20150013198 20150727	GB20150018023 20151012	GB20150021096 20151130
GB20150021098 20151130	GB20150021102 20151130	

Probable Assignee: NOKIA TECHNOLOGIES OY

Assignee(s): (std): NOKIA TECHNOLOGIES OY

Inventor(s): (std): ANTTI JOHANNES ERONEN ; ARTO JUHANI LEHTINIEMI ; CRICRI FRANCESCO ; ERONEN ANTTI ; FRANCESCO CRICRI ; HAEMAELAEINEN MATTI ; JUSSI ARTTURI LEPPANEN ; KOLMONEN VELI MATTI ; KORAY OZCAN ; LAITINEN MIKKO VILLE ; LEHTINIEMI ARTO ; LEPPANEN JUSSI ; MATE SUJEET ; MATE SUJEET SHYAMSUNDAR ; MATTI S HAMALAINEN ; MATTILA VILLE VEIKKO ; MIKKA TAPANI VILVERMO ; MIKKO TAPIO TAMMI ; MIKKO VILLE ILARI LAITINEN ; MIKKO VILLE LAITINEN ; OZCAN KORAY ; SUJEET SHYAMSUNDAR MATE ; TAMMI MIKKO ; VELI MATTI KOLMONEN ; VILVERMO MIKKA ; VILLE VEIKKO MATTILA

Agent(s): NOKIA TECHNOLOGIES OY ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: APPARATUS FOR INDUCING ATTITUDINAL **HEAD** MOVEMENTS FOR PASSIVE VIRTUAL REALITY

Abstract: Source: US2005041100A [EN] A **head** guide with a display is attitudinally controlled for guiding the **head** of a passive viewer wherein the display is for viewing images that are emulative of images viewed by a cameraman with **head** mounted cameras whose **head** attitude is monitored for controlling the **head** guide in synchronism with the images gathered by the cameras. Additionally, the viewer's eyes may be induced to follow a sequence of visual fixations at the same time as the passive viewer's **head** is induced to execute attitudinal movements consistent therewith.

Classifications:

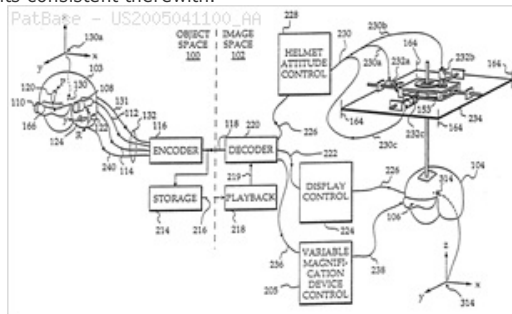
International (ipc 8-9): A47C31/00 G06F3/00 G06F3/01 G09G5/00 H04N5/57 H04N7/18 (Advanced/Invention); G06F3/00 G06F3/01 (Core/Invention)

International (ipc 1-7): G09B9/00 G09G3/02 H04N7/18

CPC: H04N7/18 G06F3/012 G06F3/011 G06F3/013 G06F3/016

European: G06F3/00B8 G06F3/00B8D G06F3/00B8E G06F3/00B8T G06F3/01B G06F3/01B2 G06F3/01B4 G06F3/01F

US: 1/1 297/217.3 297/217.300P 297/217.6 297/217.600S 345/205 345/632 345/633 345/679 345/681 345/7 345/8 345/8P 345/9 348/115 348/121 348/121P 348/61 348/61S 348/687 348/687S 348/E5.119 348/E51.19S 348/E7.085 348/E70.85S 364/410 364/516



Family:

Publication number	Publication date	Application number	Application date
US2005041100 AA	20050224	US20040948809	20040922
US2009127899 AA	20090521	US20080273482	20081118
US2010019992 AA	20100128	US20090574510	20091006
US2010149329 AA	20100617	US20100708870	20100219
US2010157045 AA	20100624	US20100714472	20100227
US2010231706 AA	20100916	US20100785439	20100522
US2014028832 AA	20140130	US20130776554	20130225
US5734421 A	19980331	US19950452510	19950530
US6181371 BA	20010130	US19970794122	19970203
US6798443 BA	20040928	US20010772016	20010129
US7453451 BA	20081118	US20000524491	20000313
US7724278 BB	20100525	US20040948809	20040922
US8218002 BB	20120710	US20090574510	20091006
US8330811 BB	20121211	US20100708870	20100219
US8330812 BB	20121211	US20100785439	20100522
US8384777 BB	20130226	US20100714472	20100227
US9274596 BB	20160301	US20080273482	20081118
USRE45062 E	20140805	US20130777899	20130226
USRE45114 E	20140909	US20130832597	20130315

Priority:

US19950452510 19950530	US19970794122 19970203	US20000524491 20000313
US20040948809 20040922	US20010772016 20010129	US19990124642P 19990316
US20080273482 20081118	US20090574510 20091006	US20100708870 20100219
US20100714472 20100227	US20100785439 20100522	US20130776554 20130225
US20130777899 20130226	US20130832597 20130315	

Probable Assignee: LLC SIMULATED PERCEPTS

Assignee(s): (std): MAGUIRE FRANCIS J JR ; MAGUIRE JR FRANCIS J ; MAGUIRE SUSAN C ; SIMULATED PERCEPTS LLC ; MAGUIRE JR FRANCIS J

Assignee(s): MAGUIRE FRANCIS J ; LLC SIMULATED PERCEPTS ; VIEWPOINT NAVIGATION LLC

Inventor(s): (std): MAGUIRE JR FRANCIS J ; MAGUIRE FRANCIS J JR ; MAGUIRE FRANCIS J ; MAGUIRE JR FRANCIS J

Inventor(s): MAGUIRE FRANCIS

Agent(s): WARE FRESSOLA VAN D SLUYS AND ADOLPHSON LLP; FRANCIS J MAGUIRE,BRADFORD GREEN BUILDING FIVE; FRANCIS J MAGUIRE JR

Title: DYNAMIC **BINAURAL SOUND CAPTURE** AND REPRODUCTION

Abstract: Source: US2004076301A [EN] A new approach to capturing and reproducing either live or recorded three-dimensional sound is described. Called MTB for "Motion-Tracked Binaural," the method employs several **microphones**, a **head** tracker, and special signal-processing procedures to combine the signals picked up by the **microphones**. MTB achieves a high degree of realism by effectively placing the listener's **ears** in the space where the sounds are occurring, moving the virtual **ears** in synchrony with the listener's **head** motions. MTB also provides a universal format for recording spatial sound.

Classifications:

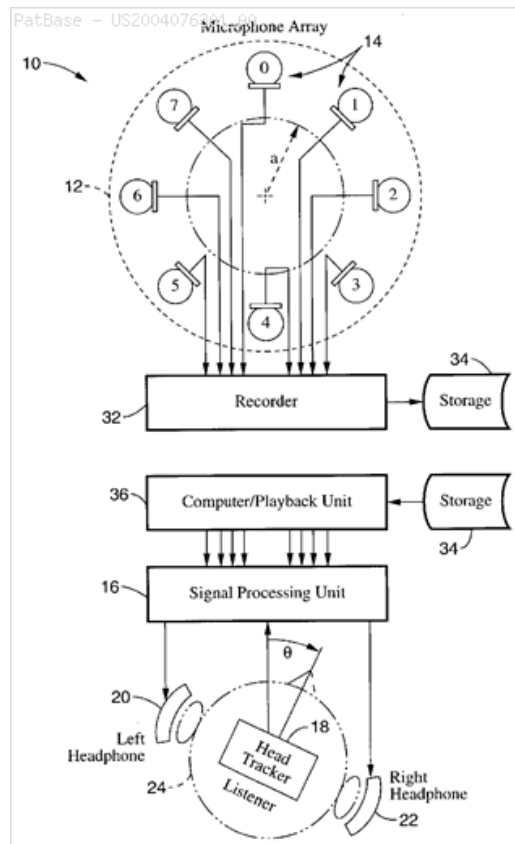
International (IPC 8-9): G01S3/80 H04R1/10 H04R3/00 H04R5/00 H04R5/02 H04R5/027 H04R5/033 H04S1/00 H04S3/00 H04S7/00 (Advanced/Invention); H04R3/00 H04R5/00 H04R5/02 H04R5/027 H04S1/00 (Advanced/Non-invention); H04R5/00 H04R5/02 H04S1/00 H04S3/00 H04S7/00 (Core/Invention); H04R3/00 H04R5/00 H04S1/00 (Core/Non-invention)

International (IPC 1-7): H04R3/00 H04R5/00 H04R5/02

CPC: H04R3/005 H04S1/005 H04S3/004 H04S2400/15 H04S7/304 H04R5/027 H04R2201/401 H04R2201/405 H04R2420/07 H04S2400/01

European: H04R5/027 H04S3/00A2 H04S7/30C1H T04R201/401 T04R201/405 T04R3/00B T04R420/07 T04R5/027 T04S1/00A2 T04S3/00A2 T04S400/01 T04S400/15

US: 367/125 381/17 381/17P 381/17S 381/26 381/309 381/31 381/310 381/310P 381/310S 381/74 381/92



Family:

Publication number	Publication date	Application number	Application date
AU2003273363 AA	20040513	AU20030273363	20030926
CA2502585 AA	20050415	CA20032502585	20030926
EP1554910 A1	20050720	EP20030755864	20030926
EP1554910 A4	20080618	EP20030755864	20030926
HK1079392 A3	20060331	HK20060100654	20060114
JP2006503526 T2	20060126	JP20050501606T	20030926
KR20050056241 A	20050614	KR20057006432	20030926
MXPA05004091 A1	20050608	MX2005PA04091	20030926
US2004076301 AA	20040422	US20030414261	20030415
US2007009120 AA	20070111	US20060450155	20060608
US2008056517 AA	20080306	US20070845607	20070827
US7333622 BB	20080219	US20030414261	20030415
WO04039123 A1	20040506	WO2003US30392	20030926

Priority:

US20020419734P 20021018	US20030414261 20030415	US20050696047P 20050701
US20070845607 20070827	US20060450155 20060608	US20060841354P 20060830
WO2003US30392 20030926		

Probable Assignee: OF CALIFORNIA UNIV

Assignee(s): (std): UNIV CALIFORNIA ; THOMPSON DENNIS ; ALGAZI V R ; ALGAZI V RALPH ; DUDA RICHARD O

Assignee(s): NATIONAL SCIENCE FOUNDATION ; OF CALIFORNIA UNIV ; ALGAZI V ; CALIFORNIA THE UNIV ; CALIFORNIA THE UNIV OF ; THE UNIV OF CALIFORNIA ; THE REGENTS OF THE UNIVERSITY OF CALIFORNIA ; THE UNIV CALIFORNIA ; TATUNG CO LTD ; UNIV ; UNIV OF CALIFORNIA

Inventor(s): (std): ALGAZI V R ; ALGAZI V RALPH ; DENNIS THOMPSON ; THOMPSON DENNIS ; THOMPSON DENNIS M ; DUDA RICHARD O

Inventor(s): RICHARD O DUDA ; ALGAZI V ; V ; V RALPH ALGAZI ; DUDA RICHARD

Agent(s): MARKS AND CLERK; JOHN P OBANION OBANION AND RITCHEY LLP; OBANION JOHN P; JOHN P

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: PANORAMIC IMAGE-BASED VIRTUAL REALITY/TELEPRESENCE AUDIO-VISUAL SYSTEM AND METHOD

Abstract: Source: US2007182812A [EN] A panoramic system comprises means for obtaining a panoramic image, and means for displaying the panoramic image.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/04 A61B5/0476

A61B5/055 A61B5/11 A61B6/00 G02B27/00 G02B27/01 G03B37/00
G05D1/00 G06F1/16 G06F13/00 G06F15/18 G06F17/30 G06F19/00
G06F3/01 G06F3/038 G06N3/08 G06N99/00 G06T11/60 G10L15/22
G10L15/26 H04N21/43 H04N5/225 H04N5/232 H04N5/247 H04N5/335
H04N5/93 H04N7/00 H04N7/14 H04N7/15

H04N7/18 (Advanced/Invention);

A61B5/00 G01R33/48 G02B13/06 G02B15/10

G02B27/01 (Advanced/Non-invention);

H04N7/00 (Core/Invention)

CPC: G06F3/038 G06F15/18 H04N5/335 H04N7/18 A61B5/745

G02B13/06 G02B15/10 G03B37/00 G06N3/08 H04N7/15 H04N5/93

G02B27/017 G02B2027/0123 G02B2027/0138 G02B2027/014

G02B2027/0156 G02B2027/0187 H04N5/2259 H04N21/4305

H04N2007/145 A61B5/0022 A61B5/0024 A61B5/04008 A61B5/055

A61B5/1114 A61B5/6803 A61B5/686 A61B2560/0242 G01R33/4806

G06F1/1626 G06F1/1686 G06F3/013 G06F3/015 G06F2203/0381

G02B27/0176 G02B27/0172 G02B27/0093 G10L15/265 G02B27/0179

G02B2027/0178 H04N7/142 H04N5/2254 A61B5/4064 A61B5/7246

A61B5/7264 A61B5/0059 A61B6/501 G06N99/005 H04N5/247

H04N5/23203 G06T11/60 G06F3/017 G10L15/22 G05D1/0016

G05D1/0038 A61B5/0476 G06F17/30943 G06F17/30979 H04N7/185

H04N5/23238 G16H40/63

European: H04N21/43S1 H04N5/225C4 H04N5/225V H04N5/232M

H04N7/14A2 T04N7/14A2H

US: 1/1 345/207 348/14.01 348/14.010S 348/14.02 348/14.020P

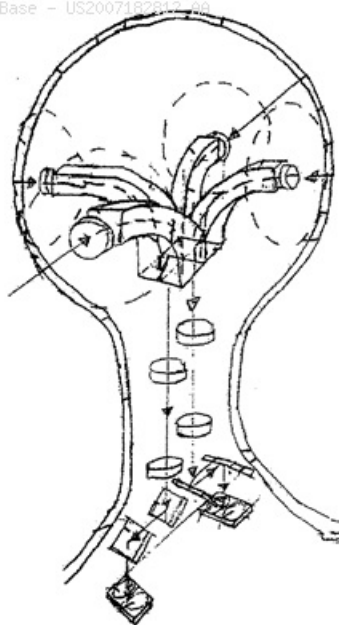
348/14.03 348/14.08 348/36 348/36P 348/36S 348/77 348/E5.028

348/E5.03 348/E5.091 348/E50.28S 348/E50.30S 348/E7.001

348/E7.078 348/E7.085 348/E70.01S 348/E70.78S 386/248 600/544

706/12 706/25 707/769

PatBase - US2007182812_00



Family:

Publication number	Publication date	Application number	Application date
US2007182812 AA	20070809	US20050131647	20050518
US2008024594 AA	20080131	US20070830637	20070730
US2012113209 AA	20120510	US20110294986	20111111
US2013063550 AA	20130314	US20120507190	20120611
US2015324692 AA	20151112	US20150788437	20150630
US2016255305 AA	20160901	US20160152214	20160511
US2017061034 AA	20170302	US20160258336	20160907
US9101279 BB	20150811	US20120507190	20120611
US9344612 BB	20160517	US20110294986	20111111
US9451899 BB	20160927	US20150788437	20150630

Priority:

US20040572408P	20040519	US20050131647	20050518	US20070830637	20070730
US20060354779	20060215	US20050830637	20050730	US20070266308	20071106
US20110294986	20111111	US20120507190	20120611	US20080266308	20081106
US20110520375P	20110609	US20160152214	20160511	US20130788437	20130307
US20150788437	20150630	US20160258336	20160907		

Probable Assignee: VIRTUAL VIDEO REALITY BY RITCHEY LLC

Assignee(s): (std): RITCHEY KENNETH IRA ; RITCHEY KURTIS J ; RITCHEY KURTIS JOHN ; VIRTUAL VIDEO REALITY BY RITCHEY LLC

Inventor(s): (std): RITCHEY KURTIS J ; RITCHEY KURTIS JOHN ; RITCHEY KENNETH IRA

Inventor(s): RITCHEY KURTIS

Agent(s): CARDINAL LAW GROUP; HOVEY WILLIAMS LLP

Title: BINAURAL RECORDING SYSTEM AND EARPIECE SET

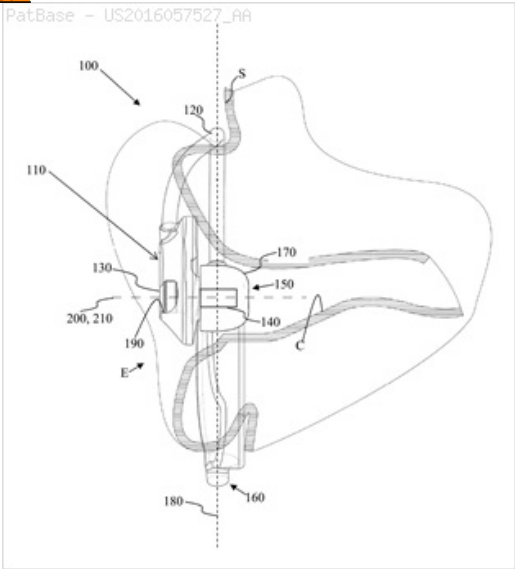
Abstract: Source: US2016057527A [EN] Systems, methods, and sets for capturing and reproducing a binaural recording are provided. In one embodiment, the binaural recording is captured using an earpiece set that includes a pair of earpieces each including a frame, a microphone, and a transducer. The frame is adapted to be worn on an ear, and defines an ear-insertion end and a posterior end opposite the ear-insertion end. The ear-insertion end is adapted to be positioned within an ear canal. The microphone is coupled to the frame for capturing ambient sound, and adapted to be positioned outside the ear canal and substantially coplanar with a tragus of the ear.

Classifications:

International (IPC 8-9): G11B20/10 H04R1/08 H04R1/10 H04R5/027 H04S1/00 (Advanced/Invention)

CPC: H04R5/027 G11B20/10527 H04S2420/01 H04S7/40 G11B2020/10574 G11B2020/10601 H04R1/1016 H04R1/1041 H04R2460/07 H04S2400/15 H04S2420/03

US: 381/74



Family:

Publication number	Publication date	Application number	Application date
US2016057527 AA	20160225	US20140465057	20140821
US2017150266 AA	20170525	US20170425629	20170206
WO16028847 A1	20160225	WO2015US45810	20150819

Priority:

US20140465057 20140821 US20170425629 20170206

Probable Assignee: EEARS LLC

Assignee(s): (std): EEARS LLC

Assignee(s): EEARS AUDIO LLC

Inventor(s): (std): MATTANA ANTHONY

Agent(s): JUNG JINWON ET AL

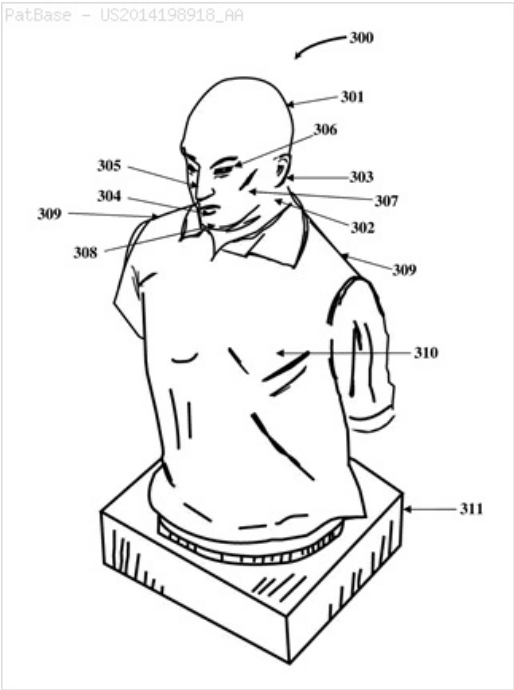
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: CONFIGURABLE THREE-DIMENSIONAL SOUND SYSTEM

Abstract: Source: US2014198918A [EN] A method and a system for simultaneously generating configurable three-dimensional (3D) sounds are provided. A 3D sound processing application (3DSPA) in operative communication with a **microphone** array system (MAS) is provided on a computing device. The MAS forms acoustic beam patterns and records sound tracks from the acoustic beam patterns. The 3DSPA generates a configurable sound field on a graphical user interface using recorded or pre-recorded sound tracks. The 3DSPA acquires user selections of configurable parameters associated with sound sources from the configurable sound field. The 3DSPA dynamically processes the sound tracks using the user selections to generate a configurable 3D **binaural sound**, surround sound, and/or stereo sound. The 3DSPA measures **head** related transfer functions (HRTFs) in communication with a simulator apparatus that simulates a human's upper body. The 3DSPA generates the **binaural sound** by processing the sound tracks with the HRTFs based on the user selections.

Classifications:

International (IPC 8-9): H04R5/00 H04R5/027
H04S7/00 (Advanced/Invention);
H04R3/00 H04S3/00 (Advanced/Non-invention)
CPC: H04R5/027 H04R3/005 H04R2201/401 H04S3/008 H04S7/30
H04S2400/01 H04S2400/15 H04S2420/01
US: 1/1 381/26



Family:

Publication number	Publication date	Application number	Application date
US2014198918 AA	20140717	US20130743551	20130117
US9131305 BB	20150908	US20130743551	20130117

Priority:

US20120631979P 20120117 US20120690754P 20120705 US20130743551 20130117

Probable Assignee: LI CREATIVE TECHNOLOGIES INC

Assignee(s): (std): DING YIN ; LI CREATIVE TECHNOLOGIES INC ; LI QI ; ZHU MANLI

Inventor(s): (std): DING YIN ; LI QI ; ZHU MANLI

Agent(s): ASH; LIPTON WEINBERGER AND HUSICK

Title: CONTROLLABLE PLAYBACK SYSTEM OFFERING HIERARCHICAL PLAYBACK OPTIONS

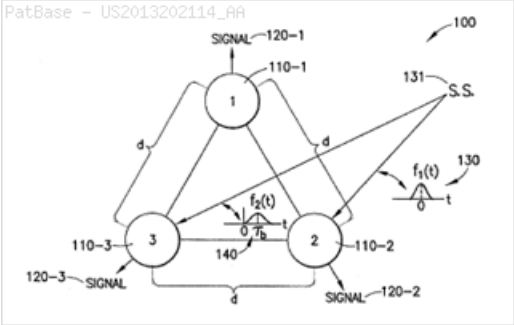
Abstract: Source: US2013202114A [EN] A first apparatus performs the following: determining, using at least two **microphone** signals corresponding to left and right **microphone** signals and using at least one further **microphone** signal, directional information of the left and right **microphone** signals; outputting a first signal corresponding to the left **microphone** signal; outputting a second signal corresponding to the right **microphone** signal; and outputting a third signal corresponding to the determined directional information. Another apparatus performs the following: performing at least one of the following: outputting first and second signals as stereo output signals; or converting the first and second signals to mid and side signals, and converting, using directional information for the first and second signals, the mid and side signals to at least one of binaural signals or multi-channel signals, and outputting the corresponding binaural signals or multi-channel signals. Additional apparatus, program products, and methods are disclosed.

Classifications:

International (IPC 8-9): H04R1/08 H04R1/40 H04R3/00 H04R3/12 H04R5/00 H04R5/027 H04R5/04 (Advanced/Invention)

CPC: H04R3/12 H04R5/027 H04R5/04 H04S2420/01 H04R2201/40 H04R3/005 H04R1/406

US: 1/1 381/1 381/92



Family:

Publication number	Publication date	Application number	Application date
US2013202114 AA	20130808	US20120365468	20120203
US2015208168 AA	20150723	US20150674266	20150331
US9055371 BB	20150609	US20120365468	20120203
US9794686 BB	20171017	US20150674266	20150331

Priority:

US20100927663 20101119 US20110209738 20110815 US20120365468 20120203
US20150674266 20150331

Probable Assignee: NOKIA TECHNOLOGIES OY

Assignee(s): (std): NOKIA CORP ; NOKIA TECHNOLOGIES OY ; TAMMI MIKKO T ; VILERMO MIIKKA T

Inventor(s): (std): TAMMI MIKKO T ; VILERMO MIIKKA T

Agent(s): HARRINGTON AND SMITH

Title: Stereophonic reproduction method and apparatus

Abstract: Source: US5553147A [EN] A method and apparatus for stereophonic reproduction uses conventional left and right stereophonic signals to energize a point source **transducer** in a complementary manner. The resultant interference sound pattern is interpreted by the brain of a listener to enable the listener to experience stereophonic hearing in a wide region surrounding the **transducer**, not just in the region of the plane of symmetry. A point source **transducer** may be simulated by a plurality of **transducers** positioned with the spacing therebetween less than a determinable maximum distance. While conventional stereophonic signals may be employed in the reproduction of sound, improved reproduction is obtained by producing the signals by recording sound with a pair of **microphones** arranged with the apogees of their respective field of polar response patterns facing substantially at 180 DEG to one another.

Classifications:

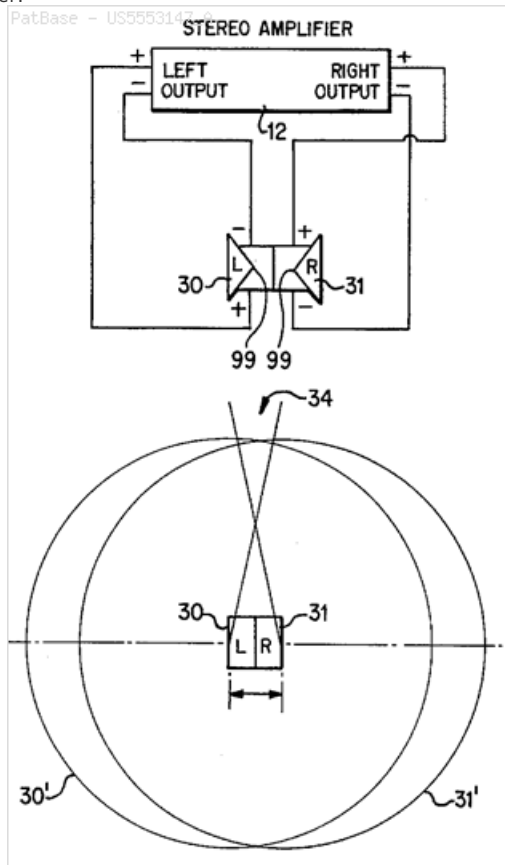
International (IPC 8-9): G02B6/00 H01L23/28 H01L33/00 H01S5/00 H04R1/40 H04R5/02 H04R5/027 H04S1/00 H04S5/00 H05K1/18 (Advanced/Invention); H04R1/40 H04S1/00 (Advanced/Non-invention); G02B6/00 H01L23/28 H01L33/00 H01S5/00 H04R1/40 H04R5/00 H04R5/02 H04S1/00 H05K1/18 (Core/Invention); H04S5/00 (Core/Non-invention)

International (IPC 1-7): H04R1/40 H04R5/02 H04R5/027 H04R50/27 H04S1/00 H04S5/00

CPC: H04R5/02 H04R5/027 H04R2205/022 H04S1/002

European: H04R5/02 H04R5/027 H04S1/00A T04R205/022

US: 381/24 381/300 381/89



Family:

Publication number	Publication date	Application number	Application date
AU199467910 A1	19941212	AU19940067910	19940506
AU679533 B2	19970703	AU19940067910	19940506
CA2162567 AA	19951109	CA19942162567	19940506
CA2162567 C	20010410	CA19942162567	19940506
CN1055601 C	20000816	CN19941092554	19940506
CN1126020 A	19960703	CN19941092554	19940506
DE69415665 D1	19990211	DE19946015665	19940506
DE69415665 T2	19990729	DE19946015665T	19940506
EP0698334 A1	19960228	EP19940916103	19940506
EP0698334 B1	19981230	EP19940916103	19940506
HK1003216 A1	20000324	HK19980102354	19980319
JP2961327 B2	19991012	JP19940524762	19940506
JP8508150 T2	19960827	JP19940524762T	19940506
KR0166662 B1	19990201	KR19950075044	19951111
KR100166662 B1	19990201	KR19950705044	19951111
KR19960703507 A	19960817	KR19950705044	19951111
SG49618 A1	19980615	SG19960001130	19940506
TW280081 B	19960701	TW19940101421	19930622
TW327018 Y	19980211	TW19960210119U	19930622
US5553147 A	19960903	US19930060339	19930511
WO9427416 A1	19941124	WO1994CA00254	19940506

Priority:

US19930060339 19930511 WO1994CA00254 19940506

Probable Assignee: ONE INC

Assignee(s): (std): ONE INC

Assignee(s): ONE INC CALGARY ALBERTA CA ; WAN INC ; PINEAU JOSEPH E M ; ONE INCCA ; CLAUDE RANGER INC ; FIRST CO

Inventor(s): (std): PINEAU JOSEPH E M ; PINEAU J E M ; PINEAU JOSEPH ; PINEAU JOSEPH EM

Inventor(s): PINOO JOSEFU II EMU ; J E M PINEAU ; JOSEPH E M PINEAU ; PINEAU JOSEPH E

Agent(s): FB RICE; FB RICE PTY LTD; SHAPIRO COHEN

Designated states: AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK ES FI FR GA GB GE GN GR HU IE IT JP
KG KP KR KZ LI LK LU LV MC MD MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SI SK SN TD TG
TJ TT UA UZ VN

Title: MULTI-PLANE HORIZONTAL PERSPECTIVE HANDS-ON SIMULATOR

Abstract: Source: US2005264558A [EN] The present invention discloses a multi-plane hands-on simulator system comprising at least two display surfaces, one of which displaying a three dimensional horizontal perspective images. Further, the display surfaces can have a curvilinear blending display section to merge the various images. The multi-plane hands-on simulator can comprise various camera eyepoints, one for the horizontal perspective images, and optionally one for the curvilinear blending display surface. The multi-plane display surface can further adjust the various images to accommodate the position of the viewer. The multi-plane hands-on simulator system can project horizontal perspective images into the open space and a peripheral device that allow the end user to manipulate the images with hands or hand-held tools.

Classifications:

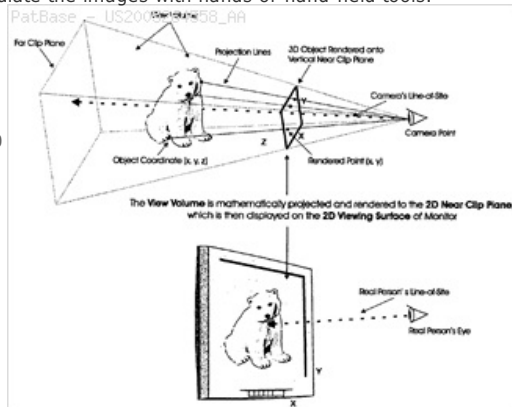
International (IPC 8-9): E21B10/00 E21B12/02 G02B27/22
G03H1/00 G06F3/01 G06F3/033 G06F3/048 G06T15/10 G06T15/20
G06T3/00 G09G5/00 H03G3/00 H04N13/00 H04N13/04 H04R5/00
H04S7/00 (Advanced/Invention);
G02B27/22 G06T15/00 (Advanced/Non-invention)

International (IPC 1-7): E21B10/00 E21B12/02 G03H1/00 G06T15/00
G09G5/00 H03G3/00 H04R5/00

CPC: H04N13/0456 G02B27/2221 G02B27/2271 G02B27/2292
G06F3/011 G06F3/0346 G06F3/04815 G06T3/4038 G06T15/20
H04N13/0278 H04N13/0452 H04N13/0484 H04N13/0495
H04R2499/15 H04S7/30 H04S7/302 H04S7/303 H04S7/304
H04S2420/01

European: G02B27/22P G02B27/22V G02B27/22V3 G06F3/00B8
G06F3/01B G06F3/033A1E G06F3/0346 G06F3/0481E G06T15/20
G06T3/40M H04N13/02E1 H04N13/04M H04N13/04N H04N13/04T11
H04N13/04V5 H04S7/00 H04S7/30 H04S7/30C H04S7/30C1
T04R499/15 T04S420/01 T04S7/30C1H

US: 345/1.1 345/419 345/419P 345/427 348/E13.047 348/E13.047S
348/E13.057 348/E13.057S 359/13 359/13P 359/445 359/445S
381/17 381/17S 381/61 381/61P 463/35 463/35S



Family:

Publication number	Publication date	Application number	Application date
CN101002253 A	20070718	CN200580025729	20050531
CN101006492 A	20070725	CN200580025717	20050531
EP1759379 A2	20070307	EP20050758077	20050531
EP1781893 A1	20070509	EP20050757162	20050531
IN08032DN2006 A	20070427	IN2006DN08032	20061229
IN08033DN2006 A	20070427	IN2006DN08033	20061229
JP2008506140 T2	20080228	JP20070515485T	20050531
JP2008507006 T2	20080306	JP20070515486T	20050531
KR20070052260 A	20070521	KR20077000037	20070102
KR20070052261 A	20070521	KR20077000038	20070102
US2005264558 AA	20051201	US20050141651	20050531
US2005264559 AA	20051201	US20050141652	20050531
US2005264857 AA	20051201	US20050141606	20050531
US2005264858 AA	20051201	US20050141649	20050531
US2005275913 AA	20051215	US20050141540	20050531
US2005275914 AA	20051215	US20050141541	20050531
US2005275915 AA	20051215	US20050141650	20050531
US2005281411 AA	20051222	US20050141640	20050531
US7796134 BB	20100914	US20050141649	20050531
WO05118998 A1	20051215	WO2005US19069	20050531
WO05118998 C1	20060427	WO2005US19069	20050531
WO05119376 A2	20051215	WO2005US19068	20050531
WO05119376 A3	20060427	WO2005US19068	20050531

Priority:

US20040576181P	20040601	US20040576182P	20040601	US20040576187	20040601
US20040576187	20040601	US20050141540	20050531	US20050141541	20050531
US20050141606	20050531	US20040576187P	20040601	US20040576189P	20040601
US20050141649	20050531	WO2005US19068	20050531	WO2005US19069	20050531
US20050141640	20050531	US20050141650	20050531	US20050141651	20050531
US20050141652	20050531				

Probable Assignee: ZSPACE INC

Assignee(s): (std): CLEMENS NANCY ; CLEMENS NANCY L ; INFINITE Z INC ; VESELY MICHAEL A

Assignee(s): NANCY CLEMENS ; ZSPACE INC ; RUNWAY GROWTH CREDIT FUND INC ; INFINITE Z LLC

Inventor(s): (std): CLEMENS NANCY ; CLEMENS NANCY L ; VESELY MICHAEL A ; VESELY MICHAEL A CLEMENS NANCY

Inventor(s): VESELY MICHAEL ; MICHAEL A VESELY ; NANCY CLEMENS

Agent(s): SHIMIZU HATSUSHI; TUE NGUYEN; FISH AND RICHARDSON PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: AUDIO SIGNAL OUTPUT DEVICE AND METHOD OF PROCESSING AN AUDIO SIGNAL

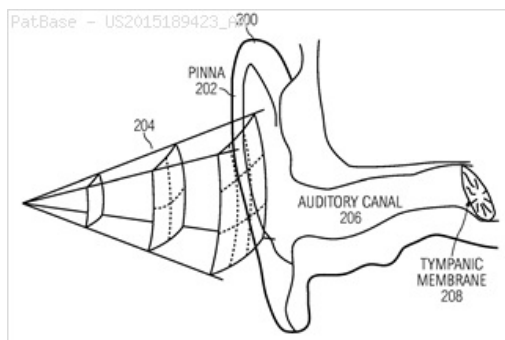
Abstract: Source: US2015189423A [EN] The present invention is a method of processing an audio signal comprising outputting a first part of a first audio signal; picking up the output first part of the first audio signal as a second audio signal; comparing a second part of the first audio signal and the second audio signal; modifying the second part of the first audio signal based on the result of the comparison; and outputting the modified second part of the first audio signal. An audio signal output device is also disclosed.

Classifications:

International (IPC 8-9): H04R1/10 H04R17/02 H04R3/00 H04R5/033 H04S3/00 H04S7/00 (Advanced/Invention)

CPC: H04R1/1091 H04R17/02 H04R2430/00 H04R1/1075 H04S7/304 H04S2420/01

US: 381/74



Family:

Publication number	Publication date	Application number	Application date
AU2012384922 AA	20140116	AU20120384922	20120713
AU2012384922 BB	20151112	AU20120384922	20120713
CN104429096 A	20150318	CN201280074475	20120713
CN104429096 B	20170308	CN201280074475	20120713
EP2873251 A1	20150520	EP20120880963	20120713
EP2873251 A4	20160518	EP20120880963	20120713
SG11201407474V A1	20141230	SG20141107474	20120713
TW201415915 A	20140416	TW20130119330	20130531
TWI540915 B	20160701	TW20130119330	20130531
US2015189423 AA	20150702	US20120411966	20120713
US9571918 BB	20170214	US20120411966	20120713
WO14011183 A1	20140116	WO2012US46588	20120713

Priority:

US20120411966 20120713 WO2012US46588 20120713

Probable Assignee: RAZER ASIA PACIFIC PTE LTD

Assignee(s): (std): GIANNUZZI JOSEPH MARIO ; RAZER ASIA PACIFIC PTE LTD

Inventor(s): (std): GIANNUZZI JOSEPH MARIO

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; VIERING JENTSCHURA AND PARTNER PATENT U RECHTSANWALTE; POLSINELLI PC; KOLBINGER KARL J

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: AUDIO CAMERA USING MICROPHONE ARRAYS FOR REAL TIME CAPTURE OF AUDIO IMAGES AND METHOD FOR JOINTLY PROCESSING THE AUDIO IMAGES WITH VIDEO IMAGES

Abstract: Source: US2009028347A [EN] Spherical microphone arrays provide an ability to compute the acoustical intensity corresponding to different spatial directions in a given frame of audio data. These intensities may be exhibited as an image and these images are generated at a high frame rate to achieve a video image if the data capture and intensity computations can be performed sufficiently quickly, thereby creating a frame-rate audio camera. A description is provided herein regarding how such a camera is built and the processing done sufficiently quickly using graphics processors. The joint processing of and captured frame-rate audio and video images enables applications such as visual identification of noise sources, beamforming and noise-suppression in video conferenceing and others, by accounting for the spatial differences in the location of the audio and the video cameras. Based on the recognition that the spherical array can be viewed as a central projection camera, such joint analysis can be performed.

Classifications:

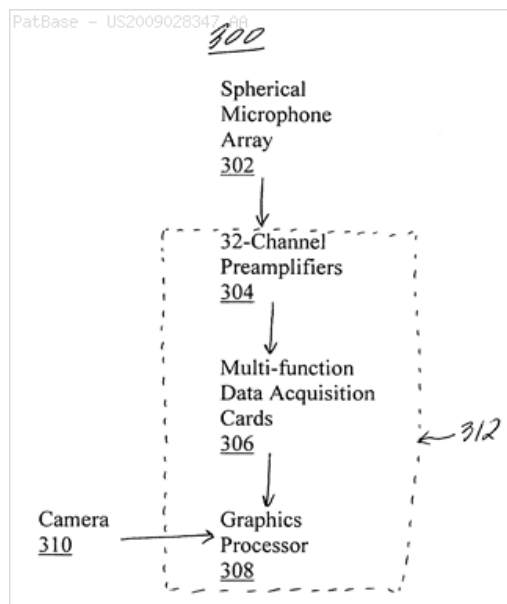
International (IPC 8-9): H04N9/475 H04R1/40 H04R3/00 H04R5/00 (Advanced/Invention);

H04N9/44 H04R5/00 (Core/Invention)

CPC: H04R1/406 H04R3/005 H04R2201/401 H04R2430/20

European: H04R1/40C H04R3/00B T04R201/401 T04R430/20

US: 348/462 348/515 348/515S 367/7 381/111 381/26 381/26P 381/92



Family:

Publication number	Publication date	Application number	Application date
US2009028347 AA	20090129	US20080127451	20080527
US2012288114 AA	20121115	US20120556099	20120723
US8229134 BB	20120724	US20080127451	20080527
US9706292 BB	20170711	US20120556099	20120723

Priority:

US20070939891P 20070524 US20080127451 20080527 US20120556099 20120723

Probable Assignee: OF MARYLAND UNIV

Assignee(s): (std): DURAISWAMI RAMANI ; GUMEROV NAIL A ; O DONOVAN ADAM ; UNIV MARYLAND ; SIEMENS CORP ; UNIV OF MARYLAND OFFICE OF TECH COMMERCIALIZATION

Assignee(s): OF MARYLAND UNIV ; OF MARYLAND OFFICE OF TECHNOLOGY COMMERCIALIZATION UNIV ; MARYLAND UNIV

Inventor(s): (std): DURAISWAMI RAMANI ; GUMEROV NAIL A ; NEUMANN JAN ; O DONOVAN ADAM

Agent(s): CARTER DELUCA FARRELL AND SCHMIDT LLP; FOLEY AND LARDNER LLP

Title: ENHANCED SPATIAL IMPRESSION FOR HOME AUDIO

Abstract: Source: US2015208166A [EN] Technologies pertaining to provision of customized audio to each listener in a plurality of listeners are described herein. A sensor outputs data that is indicative of locations of multiple listeners in an environment. The data is processed to determine locations and orientations of the respective **heads** of the multiple listener in the environment. Based on the locations and orientations of **heads** of the listeners in the environment, for each listener, respective customized audio signals are generated. The customized audio signals are transmitted to respective beamforming **transducers**. The beamforming **transducers** directionally output customized beams for the first listener and the second listener based upon the customized audio signals and locations of the **heads** of the listeners.

Classifications:

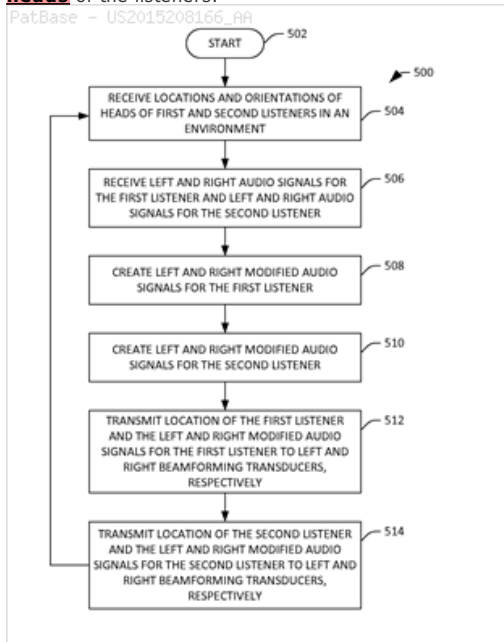
International (IPC 8-9): H04R3/00 H04R5/02

H04S7/00 (Advanced/Invention)

CPC: H04R3/002 H04R2201/403 H04R2203/12 H04R2217/03

H04S7/303

US: 381/71.6



Family:

Publication number	Publication date	Application number	Application date
CN106416304 A	20170215	CN201580004890	20150113
EP3095254 A1	20161123	EP20150707825	20150113
US2015208166 AA	20150723	US20140158796	20140118
US9560445 BB	20170131	US20140158796	20140118
WO15108824 A1	20150723	WO2015US11074	20150113

Priority:

US20140158796 20140118 WO2015US11074 20150113

Probable Assignee: MICROSOFT TECHNOLOGY LICENSING LLC

Assignee(s): (std): MICROSOFT CORP ; MICROSOFT TECHNOLOGY LICENSING LLC

Inventor(s): (std): MORRIS DANIEL ; RAGHUVANSHI NIKUNJ ; RUI YONG ; TAN DESNEY S ; WILSON ANDREW D ; WING JEANNETTE M

Agent(s): REES ALEXANDER ELLISON; SANDY; STEVE; MICKY

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Sound capturing method and device

Abstract: Source: US5793873A [EN] A sound capturing method and device for use in making recordings having improved three-dimensional imagery during playback. Vibration information is detected from a body portion through the use of a crystal **microphone** for generating a first signal corresponding to a vibrational frequency of the body portion in response to a received sound wave. Direct sound information is detected from the body portion through the use of a condenser **microphone** affixed thereto at a second location for generating a second signal corresponding to a frequency of the received sound wave. The first and second locations are in proximity to one another such that a sound wave will reach each location at substantially the same time. Alternatively, the signals received at either location may be processed or time-delayed such that sound waves are recorded from each location at substantially the same time. The resultant first and second signals may be combined through the use of a mixer and then put into a conventional sound recording device.

Classifications:

International (IPC 8-9): G11B20/02 H04R1/00

H04R5/027 (Advanced/Invention);

G11B20/02 H04R1/00 (Advanced/Non-invention);

G11B20/02 H04R1/00 H04R5/00 (Core/Invention)

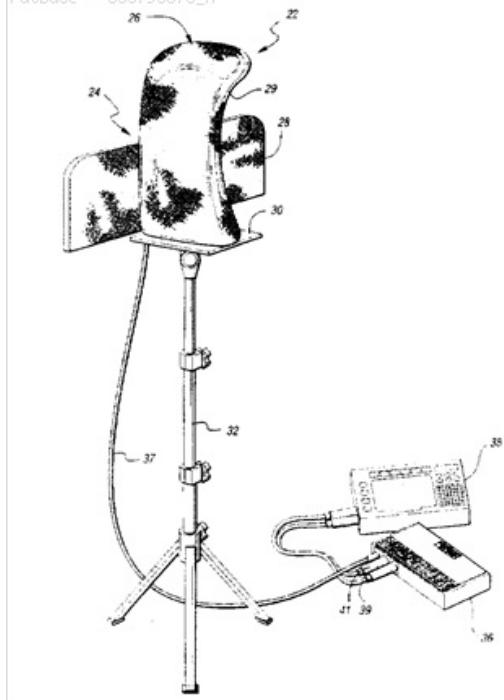
International (IPC 1-7): G11B20/02 H04R H04R1/00 H04R5/00
H04R5/027

CPC: H04R5/027

European: H04R5/027

US: 381/122 381/26 381/91

PatBase - US5793873_R



Family:

Publication number	Publication date	Application number	Application date
AU199735942 A1	19980202	AU19970035942	19970703
AU722074 B2	20000720	AU19970035942	19970703
BRPI9710232 A	20000111	BR1997PI10232	19970703
CA2253039 AA	20000506	CA19982253039	19981106
EP1016315 A1	20000705	EP19970932496	19970703
EP1016315 A4	20030409	EP19970932496	19970703
IL127933 A0	19991130	IL19970127933	19970703
JP2000514617 T2	20001031	JP19980505292T	19970703
KR20000023594 A	20000425	KR19997000040	19990107
US5793873 A	19980811	US19960660526	19960707
US6714653 BA	20040330	US19980031356	19980226
WO9802015 A1	19980115	WO1997US11716	19970703

Priority:

CA19982253039 19981106

US19960660526 19960707

US19980031356 19980226

WO1997US11716 19970703

Probable Assignee: HIGH DEFINITION AUDIO LLC

Assignee(s): (std): HIGH DEFINITION AUDIO LLC ; MAGYARI DAVID KEITH ; MAGYARI DOUGLAS PETER ; VISUAL SOUND LIMITED PARTNERSH ; VISUAL SOUND LIMITED PARTNERSHIP ; VISUAL SOUND PARTNERSH LTD ; VISUAL SOUND LTD PARTNERSHIP

Assignee(s): VISUAL SOUND LTD ; VISUAL SOUND PARTNERSHIP LTD

Inventor(s): (std): DAVID KEITH MAGYARI ; DOUGLAS PETER MAGYARI ; MAGYARI DAVID CASE ; MAGYARI DAVID KEITH ; MAGYARI DOUGLAS PETER

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; MACRAE AND CO

Designated states: AT AU BE BR CH DE DK ES FI FR GB GR IE IL IT JP KR LI LU MC MX NL PT SE SG

Title: SPECTACLE HEARING AID

Abstract: Source: US2007098192A [EN] A hearing aid/spectacles combination includes a spectacle frame and a first reproduction unit. The spectacle frame has a **microphone** array in a first spectacle arm. The **microphone** array is able to pick up a sound signal and is able to transmit a processed signal, produced on the basis of the sound signal, to the first reproduction unit. The hearing aid/spectacles combination includes a sound registration module that includes the **microphone** array; a beam forming module for forming a direction-dependent processed signal; a reproduction adaptation module for controlling a reproduction characteristic of the processed sound signal produced by the first reproduction unit; a reproduction module that comprises the first reproduction unit; and a reproduction control module for controlling a reproduction characteristic of the processed sound signal produced by the first reproduction unit; the beam forming module and the reproduction adaptation module can be based on digital techniques.

Classifications:

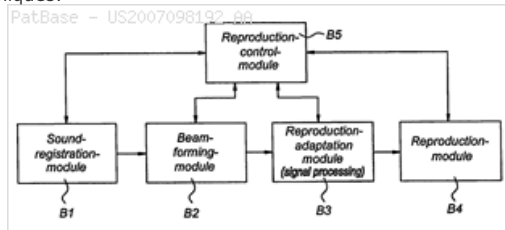
International (IPC 8-9): G02C11/06 H04R25/00 (Advanced/Invention); G02C11/00 H04R25/00 (Core/Invention); H04R (Subclass/Invention)

International (IPC 1-7): G02C11/06 H04R25/00 H04R25/00

CPC: G02C11/10 G02C11/06 H04R25/405 H04R25/407 H04R25/552

European: G02C11/06 H04R25/40D H04R25/40F H04R25/55B

US: 381/312 381/312P 381/313 381/327



Family:

Publication number	Publication date	Application number	Application date
AT398905 E	20080715	AT20030751606T	20030918
AU2003271228 AA	20040408	AU20030271228	20030918
AU2003271228 AH	20040408	AU20030271228	20030918
CN1701634 A	20051123	CN20038025228	20030918
CN1701634 B	20100526	CN20038025228	20030918
DE60321691 D1	20080731	DE20036021691	20030918
EP1540991 A2	20050615	EP20030751606	20030918
EP1540991 B1	20080618	EP20030751606	20030918
HK1076572 A1	20080829	HK20050111177	20051207
HK1076572 A3	20060120	HK20050111177	20051207
NL1021485 C2	20040322	NL20021021485	20020918
US2007098192 AA	20070503	US20030528495	20030918
US7609842 BB	20091027	US20030528495	20030918
WO04028203 A2	20040401	WO2003NL00647	20030918
WO04028203 A3	20040708	WO2003NL00647	20030918

Priority:

NL20021021485 20020918 WO2003NL00647 20030918

Probable Assignee: VARIBEL INNOVATIONS BV

Assignee(s): (std): BOONE MARINUS MARIAS ; HUTJES THOMAS ALFRED ; SIPKEMA MARCUS K ; SIPKEMA MARCUS KAREL ; STICHTING TECH WETENSCHAPP ; STICHTING VOOR DE TECHNISCHE WETENSCHAPPEN ; VARIBEL B V ; VARIBEL BV

Assignee(s): VARIBEL INNOVATIONS BV

Inventor(s): (std): BOONE MARINUS ; BOONE MARINUS MARIAS ; HUTJES THOMAS ; HUTJES THOMAS ALFRED ; KAREL SIPKEMA MARCUS ; MARCUS KAREL SIPKEMA ; MARIAS BONNE MARINUS ; MARIAS BOONE MARINUS ; MARINUS MARIAS BOONE ; SIPKEMA MARCUS ; SIPKEMA MARCUS K ; SIPKEMA MARCUS KAREL ; ALFRED HUTJES THOMAS ; ALFRED SIPKEMA MARCUS KAREL BO ; THOMAS ALFRED HUTJES

Inventor(s): BONNE MARINUS MARIAS ; SIPKEMA MARCUS KAREL BOONE MARINUS MARIAS ; SIPKEMA MARCUS KAREL BOONE MARINUS MARIAS HUTJES T ; SIPKEMA MARCUS KAREL BOONE MARINUS MARIAS HUTJES THOMAS ALFRED

Agent(s): VAN WESTENBRUGGE ANDRIES; WEBB ZIESENHEIM LOGSDON ORKIN AND HANSON, 700 KOPPERS BUILDING; WEBB ZIESENHEIM LOGSDON ORKIN AND HANSON 700 KOPPERS BUILDING; THE WEBB LAW FIRM; WEBB LAW FIRM

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: SENSOR-BASED PLACEMENT OF SOUND IN VIDEO RECORDING

Abstract: Source: US2012307048A [EN] A method may include receiving video recorded with a camera and audio recorded with a **microphone**, wherein the video and audio were recorded simultaneously, and wherein the **microphone** is configured to move relative to the camera. The method may further include receiving a selection from a user of an object in the video, wherein the object is collocated with the **microphone** that recorded the audio. The method may further include tracking the object in the video and determining a location over time of the **microphone** relative to the camera based on the tracking of the object.

Classifications:

International (IPC 8-9): H04N13/02 H04N5/77 H04N7/14 H04N7/18

H04S5/00 H04S7/00 (Advanced/Invention);

G10L21/0208 G10L21/0216 H04M1/60 H04R29/00

H04R3/00 (Advanced/Non-invention)

CPC: G06T2207/10004 G06T2207/10016 G06T2207/30201

G10L21/0208 G10L2021/02166 H04M1/6041 H04M2250/52

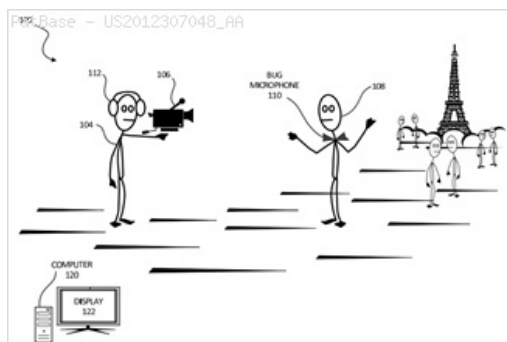
H04N5/772 H04N7/142 H04R3/005 H04R29/005 H04S5/005

H04S7/30 H04S2400/11 H04S2420/01 H04R2420/07 H04R2499/11

H04S2400/15

European: H04S5/00F H04S7/30 T04S400/11 T04S420/01

US: 1/1 348/142 348/E7.085



Family:

Publication number	Publication date	Application number	Application date
EP2530957 A2	20121205	EP20120161963	20120329
EP2530957 A3	20160120	EP20120161963	20120329
US2012307048 AA	20121206	US20110118531	20110530
US9084068 BB	20150714	US20110118531	20110530

Priority:

US20110118531 20110530

Probable Assignee: SONY MOBILE COMMUNICATIONS INC

Assignee(s): (std): ABRAHAMSSON BENGT MAGNUS ; NYSTROEM MARTIN ; RYDGREN AKE ; SONY CORP ; SONY MOBILE COMM AB ; SONY ERICSSON MOBILE COMM AB

Assignee(s): SONY MOBILE COMMUNICATIONS INC ; SONY ERICSSON MOBILE COMMUNICATIONS AB ; SONY MOBILE COMMUNICATIONS AB

Inventor(s): (std): ABRAHAMSSON BENGT MAGNUS ; NYSTROEM MARTIN ; RYDGREN AAKE ; RYDGREN AKE

Agent(s): AURELL HENRIK; ZACCO SWEDEN AB; SNYDER CLARK LESCH AND CHUNG LLP

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

Title: METHOD AND APPARATUS FOR CREATING A MULTI-DIMENSIONAL COMMUNICATION SPACE FOR USE IN A BINAURAL AUDIO SYSTEM

Abstract: Source: US2008008342A [EN] Method and apparatus for producing, combining, and customizing virtual sound environments. A **binaural sound** system (400) includes a transceiver (492) configured for receiving a signal (600) containing at least a first type of information and a second type of information. The first type of information includes enunciated data (602). The enunciated data specifies certain information intended to be audibly enunciated to a user. The second type of information comprises first type of metadata (604 - 1) and a second type of metadata (604 - 2). The first type of metadata includes information which identifies a characteristic of the enunciated data exclusive of spatial position information. The second type of metadata identifies a spatial position information associated with the enunciated data.

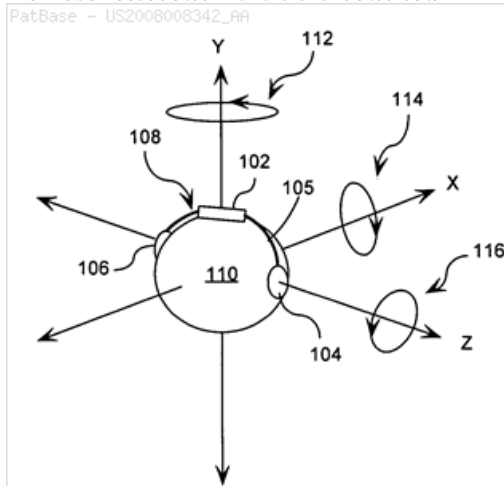
Classifications:

International (IPC 8-9): H03M7/30 H04R25/00 H04R27/00 H04R5/00 H04R5/04 H04S1/00 H04S5/00 H04S7/00 (Advanced/Invention); H04R5/02 H04S7/00 (Advanced/Non-invention); H03M7/30 H04R25/00 H04R27/00 H04S5/00 H04S7/00 (Core/Invention); H04S7/00 (Core/Non-invention)

CPC: H04R27/00 H04R2420/07 H04R2460/07 H04S1/002 H04S7/304

European: H04S1/00A T04R27/00 T04R420/07 T04R460/07 T04S7/30C1H

US: 381/17 381/310 381/312 381/312S 381/315 381/315P



Family:

Publication number	Publication date	Application number	Application date
CA2656766 AA	20090102	CA20072656766	20070703
CA2656766 C	20120515	CA20072656766	20070703
CN101491116 A	20090722	CN200780025865	20070703
EP2050309 A2	20090422	EP20070872688	20070703
EP2434782 A2	20120328	EP20110009316	20070703
JP2009543479 T2	20091203	JP20090518620T	20070703
JP4916547 B2	20120411	JP20090518620	20070703
KR101011543 B1	20110127	KR20097002179	20090203
KR20090035575 A	20090409	KR20097002179	20070703
TW200816854 A	20080401	TW20070124783	20070706
TWI340603 B	20110411	TW20070124783	20070706
US2008008342 AA	20080110	US20060482326	20060707
US7876903 BB	20110125	US20060482326	20060707
WO08091367 A2	20080731	WO2007US72767	20070703
WO08091367 A3	20081016	WO2007US72767	20070703

Priority:

EP20070872688 20070703 US20060482326 20060707 WO2007US72767 20070703

Probable Assignee: HARRIS CORP

Assignee(s): (std): HARRIS CORP

Assignee(s): SAUK PAUL L

Inventor(s): (std): SAUK PAUL L

Agent(s): GOUDREAU GAGE DUBUC; SCHMIDT STEFFEN; SCHMIDT STEFFEN J; DARBY AND DARBY was SACCO AND ASSOCIATES...; DARBY AND DARBY WAS SACCO AND ASSOCIATES; FOX ROTHSCHILD LLP; ROBERT J; YATSKO MICHAEL S ET AL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SOUND LOCALIZATION FOR USER IN MOTION

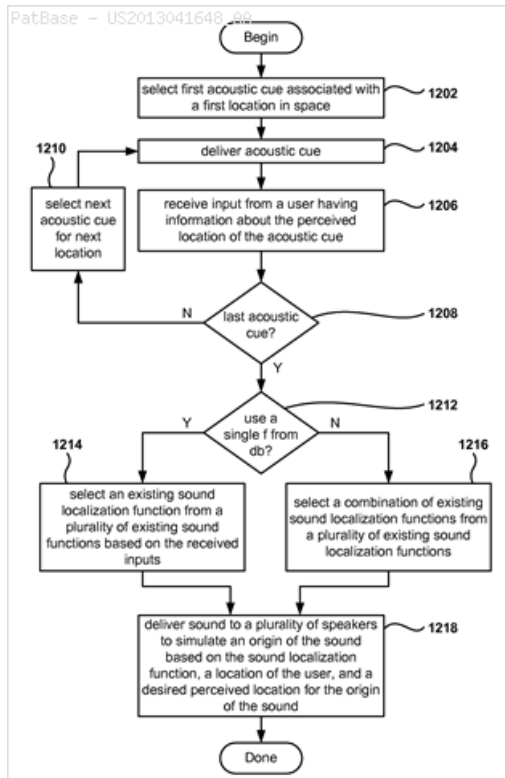
Abstract: Source: US2013041648A [EN] Methods, apparatus, and computer programs for simulating the source of sound are provided. One method includes operations for determining a location in space of the **head** of a user utilizing **face** recognition of images of the user. Further, the method includes an operation for determining a sound for two speakers, and an operation for determining an emanating location in space for the sound, each speaker being associated with one **ear** of the user. The acoustic signals for each speaker are established based on the location in space of the **head**, the sound, the emanating location in space, and the auditory characteristics of the user. In addition, the acoustic signals are transmitted to the two speakers. When the acoustic signals are played by the two speakers, the acoustic signals simulate that the sound originated at the emanating location in space.

Classifications:

International (IPC 8-9): G06F17/28 G06F3/16 G10L21/00 H04R5/02 H04S7/00 (Advanced/Invention)

CPC: H04S7/302 H04S7/304 H04S2420/01

US: 381/300 381/303 704/2 704/270

**Family:**

Publication number	Publication date	Application number	Application date
CN103218198 A	20130724	CN201210460338	20120810
CN103218198 B	20161221	CN201210460338	20120810
CN103257840 A	20130821	CN201310080633	20120810
CN103257840 B	20170426	CN201310080633	20120810
CN106909335 A	20170630	CN201610977383	20120810
US2013041648 AA	20130214	US20120478582	20120523
US2015245159 AA	20150827	US20150706575	20150507
US2018027349 AA	20180125	US20170678063	20170815
US9037468 BB	20150519	US20120478582	20120523
US9736613 BB	20170815	US20150706575	20150507

Priority:

CN201210460338	20120810	US20080259181	20081027	US20110523100P	20110812
US20110539676P	20110927	US20100947290	20101116	US20100973827	20101220
US20120478582	20120523	US20150706575	20150507	US20170678063	20170815

Probable Assignee: SONY INTERACTIVE ENTERTAINMENT INC

Assignee(s): (std): OSMAN STEVEN ; SONY COMP ENTERTAINMENT INC ; SONY COMPUTER ENTERTAINMENT INC ; SONY INTERACTIVE ENTERTAINMENT INC

Inventor(s): (std): OSMAN STEVEN

Agent(s): MARTINE PENILLA GROUP LLP

Title: HEAD-WORN, TRIMODAL DEVICE TO INCREASE TRANSCRIPTION ACCURACY IN A VOICE RECOGNITION SYSTEM AND TO PROCESS UNVOCALIZED SPEECH

Abstract: Source: US2002194005A [EN] A voice recognition device and method allows position-stabilized **capture** of spoken sounds with great repeatability and accuracy. The voice recognition device may additionally provide two channels of lip movement information to supplement the usual audible speech component recognition system in selecting the proper pairing of data input to text output. The voice recognition device may provide a further channel of information about the speech generating motions via an ultrasonic injection of sound into the vocal cavity and subsequent decoding of the emitted sound after injection. The ultrasonic injection and decoding may also used to provide audible clues as to the unvoiced sound formed by speaking when the vocal cords are not energized. The ensemble of electronic equipment upon the bail band may be in microcircuit form, including placing the components on a copper layer polyimide flexible strip. The side camera and "other side" illuminator LED may be on thin copper polyimide strips attached to the main electronics ensemble, and a set of thin polyimide conductors would conduct power into the ensemble and the signals out of the ensemble through one of the bail band ends, into the **ear** piece and down the connector to the associated computer equipment and may also supply the power for the electronic ensemble. The electronic ensemble may be potted with a thin layer of elastomer, such as translucent silicone, and provide a moisture barrier and physical protection for the ensemble, while still offering a very light visual weight to the combination of the electronic ensemble and the bail band.

Classifications:

International (IPC 8-9): G10L15/20 G10L15/24 (Advanced/Invention)

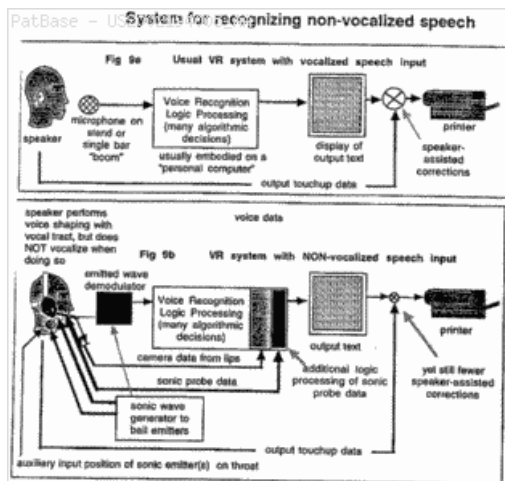
International (IPC 1-7): G09B21/00 G10L11/00 G10L15/00

G10L21/06

CPC: G10L15/24

European: G10L15/24

US: 381/375 381/376 434/112 434/112S 704/233 704/271 704/271P 704/E15.041 704/E15.041S



Family:

Publication number	Publication date	Application number	Application date
US2002194005 AA	20021219	US20020109236	20020327
US7082393 BB	20060725	US20020109236	20020327
WO20077972 A1	20021003	WO2002US10000	20020327

Priority:

US20010279116P 20010327 US20020109236 20020327

Probable Assignee: RAST ASSOCIATES LLC

Assignee(s): (std): LAHR ROY J ; RAST ASSOCIATES LLC

Inventor(s): (std): LAHR ROY J

Agent(s): KENYON AND KENYON LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Title: SOUND ENHANCEMENT FOR COCHLEAR IMPLANTS

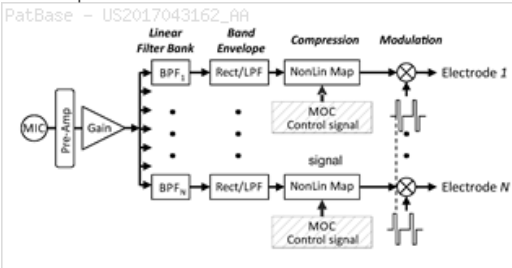
Abstract: Source: US2017043162A [EN] This document mainly discloses a method and a device for sound enhancement, both aspects of the invention hereby described are directed to cochlear implants. The method for sound enhancement and the sound enhancement device comprising a component adapted to carry out said method are based on processing the envelope for frequency bands of the acoustic signal captured, said amplification is directed to the gain value of the amplification according to an amplitude of an output signal of the other sound processor.

Classifications:

International (IPC 8-9): A61N1/36 H04R25/00 (Advanced/Invention); A61N1/36 (Advanced/Non-invention)

CPC: H04R2225/43 H04R2225/67 A61N1/36032 H04R25/356 H04R25/552 A61N1/36036

US: 607/57



Family:

Publication number	Publication date	Application number	Application date
AU2015257889 AA	20151112	AU20150257889	20150428
CN106535984 A	20170322	CN201580024191	20150428
EP2942976 A1	20151111	EP20140167487	20140508
US2017043162 AA	20170216	US20150303798	20150428
WO15169649 A1	20151112	WO2015EP59230	20150428

Priority:

EP20140167487 20140508 WO2015EP59230 20150428

Probable Assignee: UNIVERSIDAD DE SALAMANCA

Assignee(s): (std): UNIV SALAMANCA

Assignee(s): UNIVERSIDAD DE SALAMANCA ; SALAMANCA UNIV

Inventor(s): (std): LOPEZ POVEDA ENRIQUE ALEJANDRO

Agent(s): WALLINGTON DUMMER; PONS ARINO ANGEL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SITUATIONAL AWARENESS OBSERVATION APPARATUS

Abstract: Source: US2009086015A [EN] A positionable sensor assembly for a real-time remote situation awareness apparatus includes a camera for capturing an image of a scene, a plurality of first acoustic **transducers** for capturing an audio input signal from an environment including the scene, at least one second acoustic **transducer** excitable to emit an audio output signal, a support structure for supporting the camera, the plurality of first acoustic **transducers** and the at least one second acoustic **transducer**, the support structure connected to a base, moveably at least about an axis of rotation relative to the base by a remote controllable support structure positioning actuator, and a transmission unit adapted to transfer in real-time between the **transducer** assembly and a remote location a **captured** image of the scene, a **captured** audio input signal from the environment, an excitation signal to the second acoustic **transducer**, and a control signal to the support structure positioning actuator. A positionable sensor assembly for a real-time remote situation awareness apparatus. The sensor assembly comprises a camera arranged to **capture** an image of a scene, a plurality of first acoustic **transducers** adapted to **capture** an audio input signal from an environment comprising said scene, at least one second acoustic **transducer** excitable to emit an audio output signal, a support structure arranged to support said camera, said plurality of first acoustic **transducers** and said at least one second acoustic **transducer**, said support structure connected to a base, moveably at least about an axis of rotation relative to said base by a support structure positioning actuator controllable from a remote location, and a transmission means adapted to transfer in real-time between said **transducer** assembly and said remote location a **captured** image of said scene, a **captured** audio input signal from said environment, an excitation signal to said second acoustic **transducer**, and a control signal to said support structure positioning actuator.

Classifications:

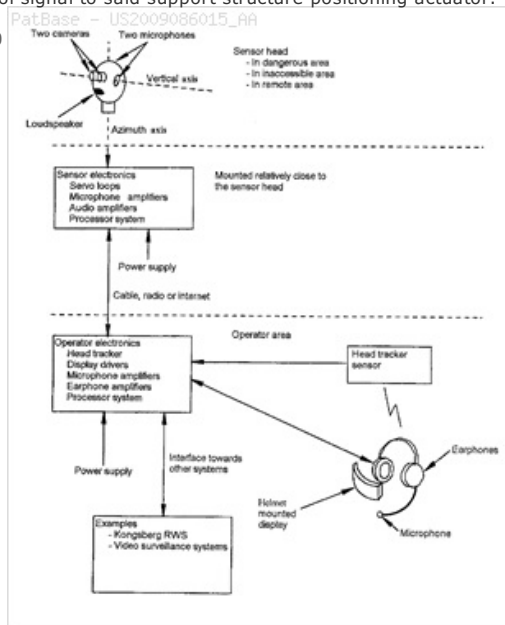
International (IPC 8-9): F41G3/00 F41G5/06 G08B13/196 H04N15/00 H04N7/18 (Advanced/Invention);

G08B13/194 H04N15/00 H04N7/18 (Core/Invention)

CPC: F41G3/165 F41G3/225 H04N7/185

European: F41G3/16B F41G3/22B H04N7/18D2

US: 348/143 348/143S 348/148 348/148S 348/158 348/158S 348/46 348/46P 348/E7.085 348/E70.85S



Family:

Publication number	Publication date	Application number	Application date
AU2008283109 AA	20090205	AU20080283109	20080728
CA2694707 AA	20090205	CA20082694707	20080728
EP2183918 A1	20100512	EP20080793891	20080728
EP2183918 A4	20111221	EP20080793891	20080728
NO20073983 A	20090202	NO20070003983	20070731
NO327577 B1	20090824	NO20070003983	20070731
US2009086015 AA	20090402	US20080183450	20080731
WO09017421 A1	20090205	WO2008N000279	20080728

Priority:

NO20070003983 20070731 US20070952922P 20070731 US20080183450 20080731
WO2008N000279 20080728

Probable Assignee: KONGSBERG DEFENCE AND AEROSPACE

Assignee(s): (std): FUGLSTAD JALGEIR ; JOHNSEN ROAR ; KONGSBERG DEFENCE AND AEROSPACE ; KONGSBERG DEFENCE AND AEROSPACE AS ; NORLAND MAGNE ; LARSEN JAN OVE ; LORENTSEN MAGNE ; LIEN ASLAK JARLE

Inventor(s): (std): FUGLSTAD HALGEIR ; FUGLSTAD JALGEIR ; JOHNSEN ROAR ; LARSEN JAN OVE ; LIEN ASLAK JARLE ; LORENTSEN MAGNE ; NORLAND MAGNE

Inventor(s): ROAR JOHNSEN ; ASLAK JARLE LIEN ; MAGNE LORENTSEN ; MAGNE NORLAND ; JALGEIR FUGLSTAD ; JAN OVE LARSEN

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; WESMANN JOHAN FREDRIK; YOUNG AND THOMPSON

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: CONVERTING MULTI-MICROPHONE CAPTURED SIGNALS TO SHIFTED SIGNALS USEFUL FOR BINAURAL SIGNAL PROCESSING AND USE THEREOF

Abstract: Source: US2012128174A [EN] A method includes, for each of a number of subbands of a frequency range and for at least first and second frequency-domain signals that are frequency-domain representations of corresponding first and second audio signals: determining a time delay of the first frequency-domain signal that removes a time difference between the first and second frequency-domain signals in the subband. The method includes forming a first resultant signal including, for each of the number of subbands, a sum of one of the first or second frequency-domain signals shifted by the time delay and of the other of the first or second frequency-domain signals; and forming a second resultant signal including, for each of the number of subbands, a difference between the shifted one of the first or second frequency-domain signals and the other of the first or second frequency-domain signals. Apparatus and program products are also disclosed.

Classifications:

International (IPC 8-9): G01S3/808 G10L19/00 G10L19/008

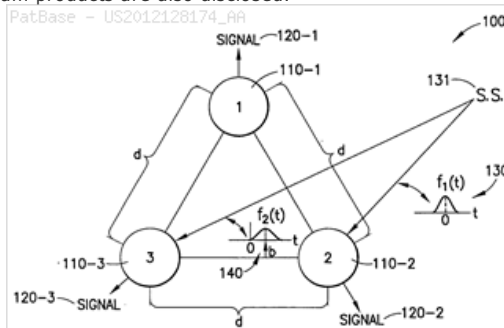
H03G5/00 H04R3/00 H04R5/00 H04S1/00

H04S3/00 (Advanced/Invention)

CPC: H04S1/002 G10L19/008 H04R2430/23 H04S2400/15

H04S2420/07 H04S2400/01

US: 1/1 381/26 381/92 381/92P 381/98 381/98S



Family:

Publication number	Publication date	Application number	Application date
EP2641244 A1	20130925	EP20110840946	20111006
EP2641244 A4	20150325	EP20110840946	20111006
US2012128174 AA	20120524	US20100927663	20101119
US2016007131 AA	20160107	US20150851266	20150911
US9456289 BB	20160927	US20100927663	20101119
WO12066183 A1	20120524	WO2011FI50861	20111006

Priority:

US20100927663 20101119 US20150851266 20150911 WO2011FI50861 20111006

Probable Assignee: NOKIA TECHNOLOGIES OY

Assignee(s): (std): NOKIA CORP ; NOKIA TECH OY ; NOKIA TECHNOLOGIES OY ; VILERO MIKKA ; TAMMI MIKKO ; TAMMI MIKKO T ; VILERO MIKKA T

Inventor(s): (std): TAMMI MIKKO T ; VILERO MIKKA T ; VILERO MIKKA ; TAMMI MIKKO

Agent(s): JAATINEN JUSSI IMARI; HARRINGTON AND SMITH; NOKIA ET AL CORP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: AUDIO CODING

Abstract: Source: US2008205658A [EN] A spatial decoder unit (23) is arranged for transforming one or more audio channels (s; l, r) into a pair of bin-aural output channels (lb, rb). The device comprises a parameter conversion unit (234) for converting the spatial parameters (sp) into binaural parameters (bp) containing binaural information. The device additionally comprises a spatial synthesis unit (232) for transforming the audio channels (L, R) into a pair of binaural signals (Lb, Rb) while using the binaural parameters (bp). The spatial synthesis unit (232) preferably operates in a transform domain, such as the QMF domain.

Classifications:

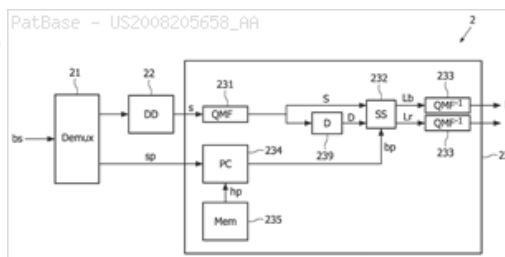
International (IPC 8-9): H04S1/00 H04S3/00 G10L19/00 G10L19/008 G10L19/02 G10L21/00 H03M7/30 H04N7/24 H04R5/00 H04S5/00 H04S5/02 H04S7/00 (Advanced/Invention); G10L19/00 H03M7/30 H04N7/24 H04S5/00 (Advanced/Non-invention); G10L19/00 G10L21/00 H03M7/30 H04N7/24 H04R5/00 H04S1/00 H04S3/00 H04S5/00 (Core/Invention)

International (IPC 1-7): H04S1/00 H04S3/00

CPC: H04R2499/11 H04S5/005 H04S7/30 H04S3/004 H04S2400/01 H04S2420/01 H04S2420/03 H03M7/30 G10L19/008

European: H04S3/00A2 H04S5/00F H04S7/30 T04R499/11 T04S400/01 T04S420/01 T04S420/03

US: 381/17 381/17P 381/22 381/23 381/300 704/500

**Family:**

Publication number	Publication date	Application number	Application date
AT456261 E	20100215	AT20070705870T	20070213
BRPI0615899 A2	20110531	BR2006PI15899	20060831
BRPI0707969 A2	20110517	BR2007PI07969	20070213
CN101263740 A	20080910	CN200680033709	20060906
CN101263742 A	20080910	CN200680033690	20060831
CN101263742 B	20141217	CN200680033690	20060831
CN101390443 A	20090318	CN200780006210	20070213
CN101390443 B	20101201	CN200780006210	20070213
CN102395098 A	20120328	CN201110367721	20060906
CN102395098 B	20150128	CN201110367721	20060906
DE602006041595 D1	20140618	DE200660041595T	20060831
DE602007004451 D1	20100311	DE200760004451T	20070213
EP1927265 A2	20080604	EP20060795920	20060906
EP1927266 A1	20080604	EP20060795846	20060831
EP1927266 B1	20140514	EP20060795846	20060831
EP1989920 A1	20081112	EP20070705870	20070213
EP1989920 B1	20100120	EP20070705870	20070213
ES2339888 T3	20100526	ES20070705870T	20070213
IN01240CN2008 A	20081128	IN2008CN01240	20080312
IN01242CN2008 A	20081128	IN2008CN01242	20080312
IN04335CN2008 A	20090313	IN2008CN04335	20080818
IN269121 B	20151009	IN2008CN01240	20080312
IN283256 B	20170519	IN2008CN04335	20080818
JP2009508157 T2	20090226	JP20080529733T	20060831
JP2009508385 T2	20090226	JP20080529747T	20060906
JP2009527970 T2	20090730	JP20080555915T	20070213
JP2012181556 A2	20120920	JP20120139050	20120620
JP4938015 B2	20120523	JP20080529747T	20060906
JP5081838 B2	20121128	JP20080555915T	20070213
JP5587551 B2	20140910	JP20080529733T	20060831
JP5698189 B2	20150408	JP20120139050	20120620
KR101315070 B1	20131008	KR20087008731	20060906
KR101358700 B1	20140207	KR20087022998	20070213
KR101370365 B1	20140305	KR20137008226	20060906
KR101512995 B1	20150417	KR20087008708	20060831
KR101562379 B1	20151022	KR20147036845	20060831
KR20080046712 A	20080527	KR20087008731	20060906
KR20080047446 A	20080528	KR20087008708	20060831
KR20080107422 A	20081210	KR20087022998	20070213
KR20130045414 A	20130503	KR20137008226	20060906
KR20150008932 A	20150123	KR20147036845	20060831
RU2008114359 A	20091020	RU20080114359	20060831
RU2008137596 A	20100327	RU20080137596	20070213
RU2419249 C2	20110520	RU20080114359	20060831
RU2427978 C2	20110827	RU20080137596	20070213
TW200721111 A	20070601	TW20060133155	20060908
TW200738038 A	20071001	TW20070105931	20070216
TWI415111 B	20131111	TW20060133155	20060908
TWI508578 B	20151111	TW20070105931	20070216
US2008205658 AA	20080828	US20060066509	20060831
US2008304670 AA	20081211	US20060066506	20060906
US2009043591 AA	20090212	US20070279856	20070213
US2015213807 AA	20150730	US20150679283	20150406
US8515082 BB	20130820	US20060066506	20060906
US8654983 BB	20140218	US20060066509	20060831
US9009057 BB	20150414	US20070279856	20070213

US9865270 BB	20180109	US20150679283	20150406
WO07031896 A1	20070322	WO2006IB53040	20060831
WO07031906 A2	20070322	WO2006IB53126	20060906
WO07031906 A3	20070913	WO2006IB53126	20060906
WO07096808 A1	20070830	WO2007IB50473	20070213

Priority:

CN200680033709	20060906	EP20050108405	20050913	EP20060110803	20060307
EP20060112104	20060331	EP20060119670	20060829	EP20060110231	20060221
EP20060795920	20060906	EP20060795846	20060831	EP20070705870	20070213
WO2006IB53040	20060831	JP20080529733	20060831	US20080279856	20080819
US20150679283	20150406	JP20080529733T	20060831	WO2007IB50473	20070213
WO2006IB53126	20060906				

Probable Assignee: PHILIPS ELECTRONICS N V KONINKLL

Assignee(s): (std): BREEBAART DIRK J ; BREEBAART DIRK JEROEN ; BREEBAART JEROEN ; KONIKLEJKE FILIPS EHLEKTRONIKS N V ; BREEBAART JEROEN DIRK ; KONINKL PHILIPS ELECTRONICS NV ; KONINK PHILIPS N V ; KONINKL PHILIPS NV ; ROYAL DUTCH PHILIPS ELECTRONICS LTD ; PHILIPS KONINKLL NV ; SCHUIJERS ERIK GOUINUS PETRUS ; OOMEN ARNOLDUS WERNER JOHANNES ; SCHUIJERS ERIK G P ; OOMEN ARNOLDUS W J

Assignee(s): SCHUIJERS ERIK G ; PHILIPS ELECTONICS N V KONINKLL ; PHILIPS ELECTRONICS NV KONINKLL ; KONINKLEJKE FILIPS EHLEKTRONIKS NV ; PHILIPS ELECTRONICS KONINKLL NV ; PHILIPS ELECTRONICS N V KONINKLL ; OOMEN ARNOLDUS W ; KONINKLIJKE PHILIPS ELECTONICS N V ; KONINKLEJKE FILIPS EHLEKTRONIKS N V ; KONIKLEJKE FILIPS EHLEKTRONIKS NV ; KONINKLIJKE PHILIPS ELECTRONICS N V

Inventor(s): (std): BREBART DIRK J ; BREEBAART DIRK J ; BREEBAART DIRK JEROEN ; BREEBAART JEROEN ; BREEBAART JEROEN DIRK ; OOMEN ARNOLDUS ; SCHUIJERS ERIK G P ; OOMEN ARNOLDUS W J ; OMEN ARNOLDUS V J ; JEROEN BREEBAART ; OOMEN ARNOLDUS WERNER JOHANNES ; SCHUIJERS ERIK GOSUINUS PETRUS ; SUJERS EHRIC G P ; SCHUIJERS ERIK GOUINUS PETRUS

Inventor(s): ARNOLDUS W J OOMEN ; SCHUIJERS ERIK ; OMEN ARNOLDUS V. J. ; SCHUIJERS ERIK G ; OOMEN ARNOLDUS W ; DIRK J BREEBAART ; ERIK G P SCHUIJERS ; BREEBAART DIRK

Agent(s): MEISSNER BOLTE AND PARTNER GBR ; GROENENDAAL ANTONIUS W M ; VERWEIJ PETRONELLA DANIELLE ; UITTENBOGAARD FRANK ; PHILIPS INTELLECTUAL PROPERTY AND STANDARDS

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

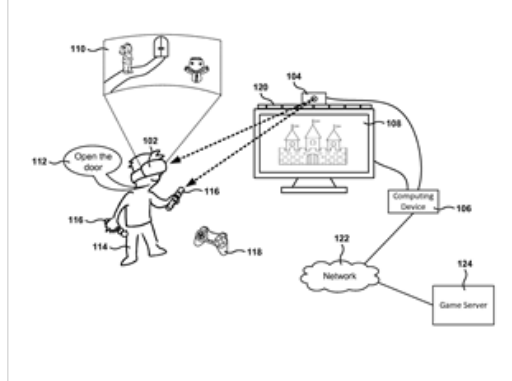
Title: IMAGE RENDERING RESPONSIVE TO USER ACTIONS IN **HEAD** MOUNTED DISPLAY

Abstract: Source: US2014361977A [EN] Methods, systems, and computer programs are presented for rendering images on a **head** mounted display (HMD). One method includes operations for tracking, with one or more first cameras inside the HMD, the gaze of a user and for tracking motion of the HMD. The motion of the HMD is tracked by analyzing images of the HMD taken with a second camera that is not in the HMD. Further, the method includes an operation for predicting the motion of the gaze of the user based on the gaze and the motion of the HMD. Rendering policies for a plurality of regions, defined on a view rendered by the HMD, are determined based on the predicted motion of the gaze. The images are rendered on the view based on the rendering policies.

Classifications:

International (IPC 8-9): A63F13/211 A63F13/213 A63F13/235 A63F13/25 A63F13/30 A63F13/327 A63F13/332 A63F13/40 A63F13/428 A63F13/52 A63F13/525 A63F13/53 G02B27/00 G02B27/01 G02B27/02 G06F3/01 G06F3/03 G06F3/0346 G06F3/038 G06F3/0481 G06F3/0484 G06F3/0485 G06F3/16 G06T19/00 G06T3/40 G06T7/00 G06T7/20 G09G5/00 G09G5/14 G09G5/36 H04B7/04 H04N5/64 H04S7/00 (Advanced/Invention); G06F3/01 G06F3/038 (Advanced/Non-invention)
CPC: G02B27/017 G06F3/013 G06T7/0042 G06F3/16 G06T3/40 G09G5/14 H04S7/304 A63F13/53 A63F13/213 A63F13/25 A63F13/211 G09G2340/0407 G09G2354/00 H04S2400/11 H04S2420/01 G06F3/147 G09G3/003 G09G2370/16 A63F13/30 A63F13/32 A63F13/54 A63F2300/6081 A63F2300/6615 G06F3/012 A63F13/10 A63F2300/105 A63F2300/1087 A63F2300/6661 G02B27/0093 G02B2027/0138 G02B2027/014 G02B2027/0187 G06F3/038 H04S7/303 A63F13/212 A63F13/235 H04B7/04 G09G5/006 A63F2300/8082 A63F13/327 G06F3/0346 G06F3/0304 A63F2300/303 A63F2300/405 A63F13/332
US: 345/156

PatBase - US2014361977_AA



Family:

Publication number	Publication date	Application number	Application date
CN105392538 A	20160309	CN201480032498	20140523
EP3003517 A1	20160413	EP20140733016	20140523
JP2016527536 T2	20160908	JP20160518339T	20140523
JP2017146607 A2	20170824	JP20170051072	20170316
JP6114472 B2	20170412	JP20160518339T	20140523
US2014361977 AA	20141211	US20140206849	20140312
US2017045941 AA	20170216	US20160337469	20161028
US2018093177 AA	20180405	US20170475976	20170331
US2018095529 AA	20180405	US20160283138	20160930
US9897805 BB	20180220	US20140206849	20140312
WO14197226 A1	20141211	WO2014US39344	20140523
WO18064627 A1	20180405	WO2017US54605	20170929

Priority:

JP20160518339T	20140523	JP20170051072	20170316	US20130832755P	20130607
US20120478582	20120523	US20110523100P	20110812	US20110539676P	20110927
US20140206849	20140312	WO2014US39344	20140523	US20160337469	20161028
US20160283138	20160930	US20150706575	20150507	US20170475976	20170331

Probable Assignee: SONY INTERACTIVE ENTERTAINMENT INC

Assignee(s): (std): SONY COMP ENTERTAINMENT INC ; SONY COMPUTER ENTERTAINMENT INC ; SONY INTERACTIVE ENTERTAINMENT INC ; SONY INTERACTIVE ENTERTAINMENT LLC ; STAFFORD JEFFREY ROGER

Assignee(s): TOKUBO TODD

Inventor(s): (std): BLACK GLENN ; GLENN BLACK ; JEFFREY ROGER STAFFORD ; MAO XIADONG ; OSMAN STEVEN ; STAFFORD JEFFREY ROGER ; TOKUBO TODD

Inventor(s): MAO XIAODONG

Agent(s): D YOUNG AND CO LLP; MORISHITA SAKAKI; MARTINE PENILLA GROUP LLP; NUNEZ JOSE M; LEE DAVID F ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD AND DEVICE FOR BINAURAL SIGNAL ENHANCEMENT

Abstract: Source: US2009304203A [EN] Various embodiments for components and associated methods that can be used in a binaural speech enhancement system are described. The components can be used, for example, as a pre-processor for a hearing instrument and provide binaural output signals based on binaural sets of spatially distinct input signals that include one or more input signals. The binaural signal processing can be performed by at least one of a binaural spatial noise reduction unit and a perceptual binaural speech enhancement unit. The binaural spatial noise reduction unit performs noise reduction while preferably preserving the binaural cues of the sound sources. The perceptual binaural speech enhancement unit is based on auditory scene analysis and uses acoustic cues to segregate speech components from noise components in the input signals and to enhance the speech components in the binaural output signals.

Classifications:

International (IPC 8-9): G01L21/02 G10L19/008 G10L21/028

H04B15/00 H04R25/00 (Advanced/Invention);

G01L21/00 H04B15/00 H04R25/00 (Core/Invention)

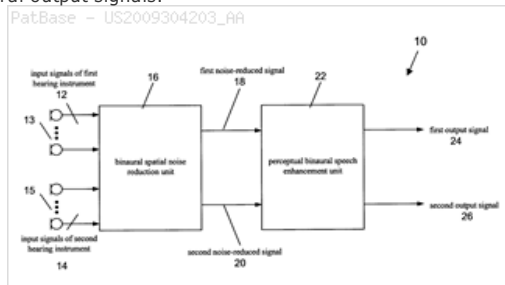
CPC: G10L21/02 G10L2021/065 H04R25/407 H04R25/552

H04R2201/403 H04R2225/43

European: G10L21/02 H04R25/40F H04R25/55B S10L21/06H

T04R201/403 T04R225/43

US: 381/94.1 381/94.100P 704/226

**Family:**

Publication number	Publication date	Application number	Application date
CA2621940 AA	20080307	CA20062621940	20060908
CA2621940 C	20140729	CA20062621940	20060908
US2009304203 AA	20091210	US20060066148	20060908
US8139787 BB	20120320	US20060066148	20060908
WO07028250 A2	20070315	WO2006CA01476	20060908
WO07028250 A3	20070426	WO2006CA01476	20060908

Priority:

US20050715134P 20050909

US20060066148 20060908

WO2006CA01476 20060908

Probable Assignee: UNIV MCMaster

Assignee(s): (std): DOCLO SIMON ; DONG RONG ; HAYKIN SIMON ; UNIV MCMaster ; MOONEN MARC ; KATHOLIEKE UNIVERSITEIT LEUVEN

Assignee(s): MCMaster UNIV ; MCMaster UNIVERSITY ; KATHOLIEKE UNIVERSITEIT LEUVENKASTEELPARK ARENBERG 10B-3001HEVERLEE; MCMaster UNIV1200 MAIN STREET WESTHAMILTONO1L8S 4J9CA ; HAYKIN SIMON475 ONTARIO STREETANCASERO1L9G 3E1CA ; DONG RONG809 - 1868 MAIN STREET WESTHAMILTONO1L8S 1J1CA

Inventor(s): (std): MOONEN MARC ; HAYKIN SIMON ; DONG RONG ; DOCLO SIMON

Inventor(s): MOONEN MARCBE ; HAYKIN SIMON475 ONTARIO STREETANCASERO1L9G 3E1CA ; DONG RONG809 - 1868 MAIN STREET WESTHAMILTONO1L8S 1J1CA ; DOCLO SIMONBE

Agent(s): BERESKIN AND PARR LLP SENCRL SRL; BERESKIN AND PARR

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: ACQUISITION OF SPATIALIZED SOUND DATA

Abstract: Source: US2016277836A [EN] A data-processing method for determining at least one spatial coordinate of a sound source emitting a sound signal, in a three-dimensional space, said method including the following steps: obtaining at least one first signal and one second signal from the sound signal, collected according to separate directivities by a first sensor and a second sensor; deducing from the first and second signals an expression of at least one first spatial coordinate of the sound source, the expression comprising an uncertainty regarding said spatial coordinate; determining additional information relating to the first spatial coordinate of the sound source, from a comparison between the respective features of the signals collected by the first and second sensors; and determining the first spatial coordinate of the sound source on the basis of the expression and the additional information.

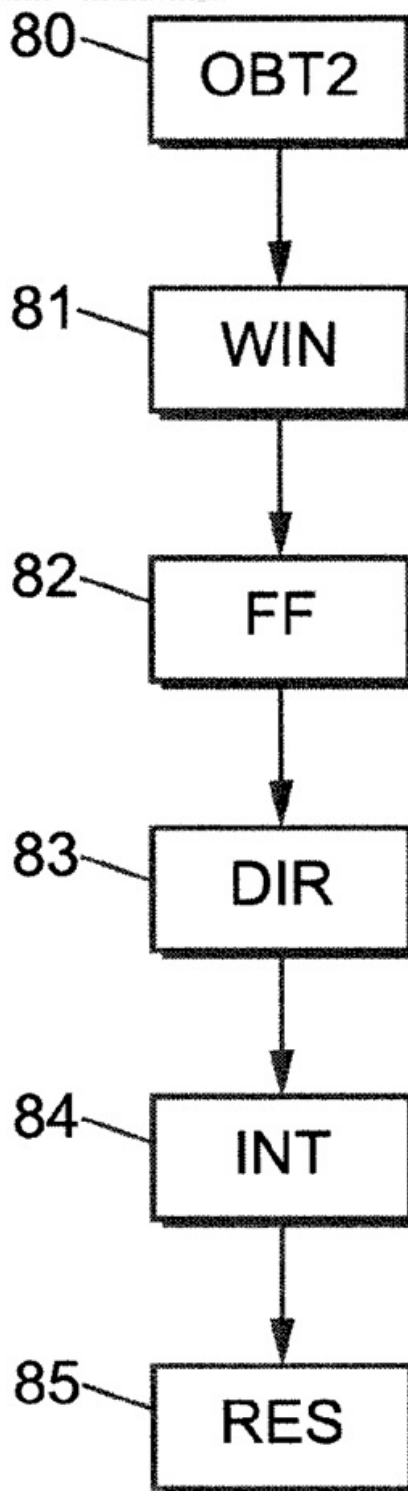
Classifications:

International (IPC 8-9): G01S3/802 G01S3/803 G01S5/22 H04R3/00 H04R5/027 H04S7/00 (Advanced/Invention)

CPC: H04R5/027 H04S7/301 H04R2430/21 H04S2400/15 H04S2420/11 H04R3/005 H04R3/00 H04R2430/20 G01S3/8036

US: 381/2

PatBase - US2016277836_AA



Family:

Publication number	Publication date	Application number	Application date
EP2920979 A1	20150923	EP20130801670	20131115
FR2998438 A1	20140523	FR20120060898	20121116
US2016277836 AA	20160922	US20130442440	20131115

US9838790 BB	20171205	US20130442440	20131115
WO14076430 A1	20140522	WO2013FR52749	20131115

Priority:

FR20120060898 20121116 WO2013FR52749 20131115

Probable Assignee: ORANGE

Assignee(s): (std): FRANCE TELECOM ; ORANGE

Inventor(s): (std): NICOL ROZENN ; PALACINO JULIAN

Inventor(s): ROZENN NICOL ; JULIAN PALACINO

Agent(s): CABINET PLASSERAUD; DRINKER BIDDLE AND REATH LLP; ORANGE IMT OLPS IPL PAT

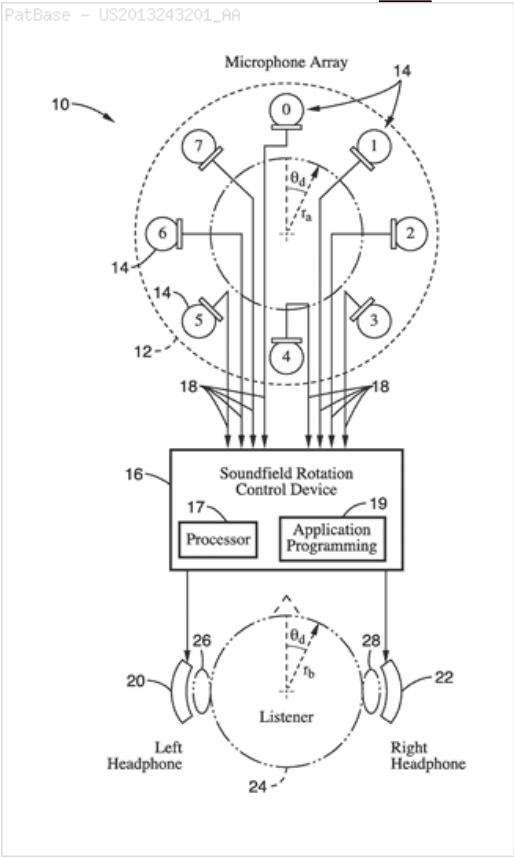
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: EFFICIENT CONTROL OF SOUND FIELD ROTATION IN BINAURAL SPATIAL SOUND

Abstract: Source: US2013243201A [EN] A sound reproduction method and apparatus for determining the desired orientation of the listener's **head** in a sound field. The method includes the steps of receiving input signals representative of output signals from a plurality of **microphones** positioned at a location to sample a sound field at points representing possible locations of a listener's left and right **ears** if said listener was positioned in said sound field at said location, and processing the input signals to generate a composite signal that simulates a rotation of the sound field about the listener's **head**.

Classifications:

International (IPC 8-9): H04R5/027 (Advanced/Invention)
CPC: H04R5/027 H04R3/005 H04S7/304 H04S2400/15 H04S2420/01 H04S2420/07 H04M3/568 H04M2203/509
US: 381/17



Family:

Publication number	Publication date	Application number	Application date
US2013243201 AA	20130919	US20130776556	20130225

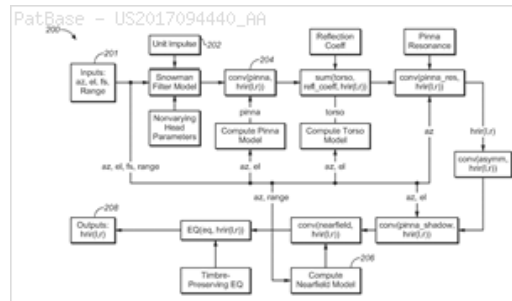
Priority:

US20120602454P 20120223 US20130776556 20130225

Probable Assignee: OF CALIFORNIA UNIV
Assignee(s): (std): CALIFORNIA THE UNIV OF ; UNIV CALIFORNIA
Assignee(s): OF CALIFORNIA UNIV ; THE UNIV OF CALIFORNIA
Inventor(s): (std): ALGAZI V RALPH ; DUDA RICHARD O

Abstract: Source: US2017094440A [EN] A method for creating a **head**-related impulse response (HRIR) for use in rendering audio for playback through headphones comprises receiving location parameters for a sound including azimuth, elevation, and range relative to a **head** of a listener, applying a spherical **head** model to the azimuth, elevation, and range input parameters to generate binaural HRIR values, computing a pinna model using the azimuth and elevation parameters to apply to the binaural HRIR values to pinna modeled HRIR values, computing a torso model using the azimuth and elevation parameters to apply to the pinna modeled HRIR values to generate pinna and torso modeled HRIR values, and computing a near-field model using the azimuth and range parameters to apply to the pinna and torso modeled HRIR values to generate pinna, torso and near-field modeled HRIR values.

International (IPC 8-9): H04S1/00 H04S7/00 (Advanced/Invention)
CPC: H04S7/304 H04S1/007 H04S2400/11 H04S7/30 H04S2420/01
US: 381/17



Publication number	Publication date	Application number	Application date
EP3114859 A1	20170111	EP20150713262	20150304
US2017094440 AA	20170330	US20150123934	20150304
WO15134658 A1	20150911	WO2015US18812	20150304

US20140948849P 20140306 US20150123934 20150304 WO2015US18812 20150304

Assignee(s): (std): DOLBY LAB LICENSING CORP ; DOLBY LABORATORIES LICENSING CORP

Inventor(s): (std): BROWN C PHILLIP ; FELLERS MATTHEW ; RADHAKRISHNAN REGUNATHAN

Agent(s): DOLBY INT AB PATENT GROUP EUROPE; ANDERSEN ROBERT L ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QZ RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG UY UZ VC VN ZA ZM ZW

Title: ENHANCED STEREOSCOPIC IMMERSIVE VIDEO RECORDING AND VIEWING

Abstract: Source: US2009237492A [EN] An immersive audio-visual system (and a method) for creating an enhanced interactive and immersive audio-visual environment is disclosed. The immersive audio-visual environment enables participants to enjoy true interactive, immersive audio-visual reality experience in a variety of applications. The immersive audio-visual system comprises an immersive video system, an immersive audio system and an immersive audio-visual production system. The video system creates immersive stereoscopic videos that mix live videos, computer generated graphic images and human interactions with the system. The immersive audio system creates immersive sounds with each sound resource positioned correct with respect to the position of an associated participant in a video scene. The immersive audio-video production system produces an enhanced immersive audio and videos based on the generated immersive stereoscopic videos and immersive sounds. A variety of applications are enabled by the immersive audio-visual production including casino-type interactive gaming system and training system.

Classifications:

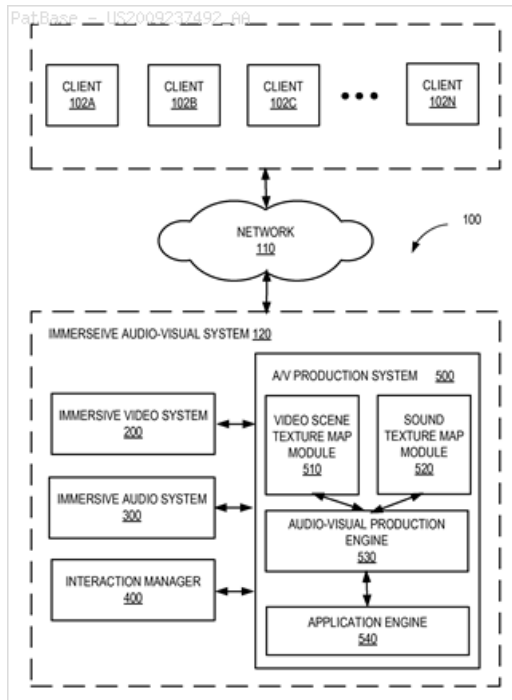
International (IPC 8-9): G06T15/00 H04N13/02 H04N5/93 H04N9/74 H04R3/00 (Advanced/Invention);

G06T15/00 H04N13/02 H04N5/93 H04N9/74 H04R3/00 (Core/Invention)

CPC: H04N13/0296 H04N13/0497

European: H04N13/02Y H04N13/04Y

US: 345/419 345/419S 348/46 348/46S 348/47 348/47P 348/584 348/584P 348/E13.074 348/E13.074S 348/E13.075 348/E13.075S 348/E9.055 348/E9.055S 381/92 381/92P 386/239 386/239S 386/278 386/278S 386/326 386/326S 386/52

**Family:**

Publication number	Publication date	Application number	Application date
US2009237492 AA	20090924	US20090405957	20090317
US2009237564 AA	20090924	US20090405959	20090317
US2009238378 AA	20090924	US20090405950	20090317
WO09117450 A1	20090924	WO2009US37442	20090317

Priority:

US20080037643P 20080318	US20080060422P 20080610	US20080092608P 20080828
US20080093649P 20080902	US20080110788P 20081103	US20090150944P 20090209
US20090405959 20090317	US20090405957 20090317	US20090405950 20090317

Probable Assignee: INVISM INC

Assignee(s): (std): GOURJIAN MEHER ; INVISM INC ; KIKINIS DAN ; KRISHNAN RAJESH ; PHELPS RUSSEL H ; WEYL STEPHEN ; SCHMIDT RICHARD

Inventor(s): (std): GOURJIAN MEHER ; KIKINIS DAN ; KRISHNAN RAJESH ; PHELPS III RUSSEL H ; PHELPS RUSSEL H ; SCHMIDT RICHARD ; WEYL STEPHEN

Agent(s): FENWICK AND WEST LLP; LI FENGLING ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROSTHETIC HEARING DEVICE THAT TRANSFORMS A DETECTED SPEECH INTO A SPEECH OF A SPEECH FORM ASSISTIVE IN UNDERSTANDING THE SEMANTIC MEANING IN THE DETECTED SPEECH

Abstract: Source: US7676372B [EN] A speech transformation apparatus comprises a **microphone** 21 for detecting speech and generating a speech signal; a signal processor 22 for performing a speech recognition process using the speech signal; a speech information generator for transforming the recognition result responsive to the physical state of the user, the operating conditions, and/or the purpose for using the apparatus; and a display unit 26 and loudspeaker 25 for generating a control signal for outputting a raw recognition result and/or a transformed recognition result. In a speech transformation apparatus thus constituted, speech enunciated by a spoken-language-impaired individual can be transformed and presented to the user, and sounds from outside sources can also be transformed and presented to the user.

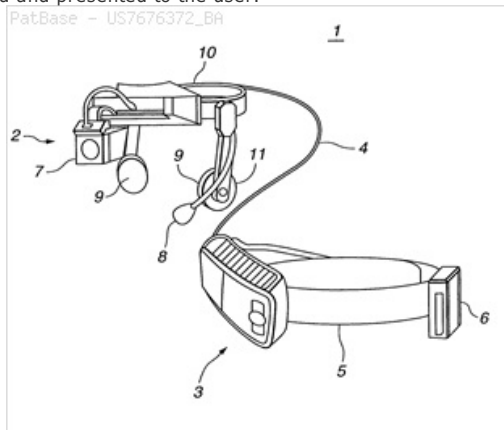
Classifications:

International (IPC 8-9): G09B21/00 G10L15/00 G10L15/08 G10L15/22 G10L21/00 G10L21/02 H04R25/00 H04R3/00 (Advanced/Invention); G10L15/08 G10L21/00 (Advanced/Non-invention); G09B21/00 G10L15/00 G10L21/00 H04R25/00 H04R3/00 (Core/Invention); G10L15/00 (Core/Non-invention)

International (IPC 1-7): G10L15/00 G10L15/22 H04R25/00 H04R3/00
CPC: G10L21/0364 H04R25/505 G09B21/009 G10L15/08 G10L21/02 G10L2021/0575 G10L2021/065

European: G09B21/00C G10L21/02 G10L21/02A4 H04R25/50D S10L15/08 S10L21/057H S10L21/06H

US: 434/169 434/185 704/231 704/270 704/271



Family:

Publication number	Publication date	Application number	Application date
AT471039 E	20100615	AT20000903984T	20000216
AU200025719 A1	20000904	AU20000025719	20000216
AU200025719 A5	20000904	AU20000025719	20000216
AU2004210593 AA	20050106	AU20040210593	20040826
CA2328953 AA	20001016	CA20002328953	20000216
DE60044521 D1	20100722	DE20006044521	20000216
EP1083769 A1	20010314	EP20000903984	20000216
EP1083769 A4	20070530	EP20000903984	20000216
EP1083769 B1	20100609	EP20000903984	20000216
JP2000049834 A1	20020611	JP20000600451T	20000216
JP2000308198 A2	20001102	JP19990338458	19991129
JP3670180 B2	20050713	JP19990338458	19991129
JP4439740 B1	20100324	JP20000600451T	20000216
JP4439740 B2	20100324	JP20000600451T	20000216
US7676372 BA	20100309	US20000673360	20000216
WO0049834 A1	20000824	WO2000JP00872	20000216

Priority:

AU20000025719 20000216 AU20040210593 20040826 JP19990037558 19990216
 JP19990037559 19990216 WO2000JP00872 20000216 JP19990338458 19991129

Probable Assignee: YUGEN KAISHA GM AND M

Assignee(s): (std): GM AND M KK ; OBA TOSHIHIKO ; YUGEN KAISHA GM AND M

Assignee(s): YUGEN KAISHA GM AMP AMP

Inventor(s): (std): OBA TOSHIHIKO

Inventor(s): TOSHIHIKO OBA

Agent(s): GRIFFITH HACK; GOWLING LAFLEUR HENDERSON LLP; DEVILE JONATHAN MARK; MASUI CHUJI; TOMITA HIROYUKI; SHAMOTO ICHIO; KOBAYASHI YASUSHI; CHIBA AKIO; TANAKA HIDEO; BRINKS HOFER GILSON AND LIONE

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Title: SIGNALING LAYERS FOR SCALABLE CODING OF HIGHER ORDER AMBISONIC AUDIO DATA

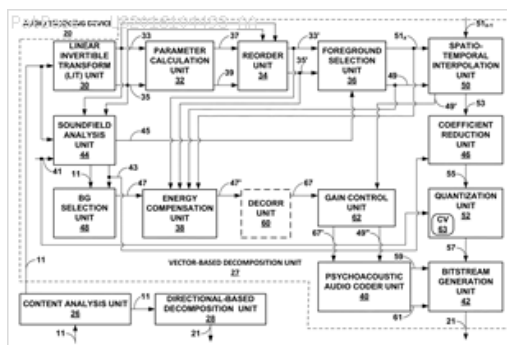
Abstract: Source: US2016104493A [EN] In general, techniques are described for signaling layers for scalable coding of higher order ambisonic audio data. A device comprising a memory and a processor may be configured to perform the techniques. The memory may be configured to store the bitstream. The processor may be configured to obtain, from the bitstream, an indication of a number of layers specified in the bitstream, and obtain the layers of the bitstream based on the indication of the number of layers.

Classifications:

International (IPC 8-9): G10L19/008 G10L19/16 H04L29/06
H04L29/08 H04N21/233 H04N21/2368 H04N21/442 H04N21/462
H04N21/6373 H04N21/81 H04N21/845 H04N21/854 H04S3/00
H04S5/00 H04S7/00 (Advanced/Invention)

CPC: H04S3/008 H04S2420/11 H04S7/30 G10L19/008 H04L65/607
H04L67/02 H04L67/42 H04N21/44209 H04N21/4621 H04N21/6373
H04N21/8106 H04N21/845 G10L19/167

US: 381/22 381/23 709/219



Family:

Publication number	Publication date	Application number	Application date
AU2015330758 AA	20160414	AU20150330758	20151009
AU2015330759 AA	20160414	AU20150330759	20151009
BR112017007153 A2	20171219	BR20171107153	20151009
BR112017007287 A2	20171226	BR20171107287	20151009
CA2961292 AA	20170313	CA20152961292	20151009
CA2961405 AA	20170314	CA20152961405	20151009
CA2992599 AA	20180115	CA20162992599	20160825
CL2017000821 A1	20171222	CL20170000821	20170404
CN106796795 A	20170531	CN201580054372	20151009
CN106796796 A	20170531	CN201580054552	20151009
CO20170003345 A2	20170929	CO20170003345	20170406
CO20170003348 A2	20170929	CO20170003348	20170406
EP3204941 A1	20170816	EP20150787774	20151009
EP3204942 A1	20170816	EP20150788498	20151009
IN201747009008 A	20170407	IN201747009008	20170315
IN201747009009 A	20170407	IN201747009009	20170315
IN201847001435 A	20180323	IN201847001435	20180112
JP2017534910 T2	20171124	JP20170518945T	20151009
JP2017534911 T2	20171124	JP20170518952T	20151009
KR20170067758 A	20170616	KR20177009443	20151009
KR20170067764 A	20170616	KR20177009564	20151009
SG11201701624S A1	20170427	SG20171101624	20151009
SG11201701626R A1	20170427	SG20171101626	20151009
TW201714456 A	20170416	TW20160127327	20160825
US2016104493 AA	20160414	US20150878691	20151008
US2016104494 AA	20160414	US20150878729	20151008
US2017063960 AA	20170302	US20160246370	20160824
WO16057925 A1	20160414	WO2015US54950	20151009
WO16057926 A1	20160414	WO2015US54951	20151009
WO17035376 A2	20170302	WO2016US48740	20160825
WO17035376 A3	20170427	WO2016US48740	20160825

Priority:

US20140062584P 20141010	US20140084461P 20141125	US20140087209P 20141203
US20140088445P 20141205	US20150145960P 20150410	US20150175185P 20150612
US20150878691 20151008	US20150187799P 20150701	US20150209764P 20150825
US20150878729 20151008	US20160246370 20160824	US20150209779P 20150825
WO2015US54950 20151009	WO2015US54951 20151009	WO2016US48740 20160825

Probable Assignee: QUALCOMM INC

Assignee(s): (std): QUALCOMM INC

Assignee(s): SEN DIPANJAN ; STOCKHAMMER THOMAS ; KIM MOO YOUNG ; PETERS NILS GUNTHER

Inventor(s): (std): PETERS NILS GUENTHER ; PETERS NILS GUNTHER ; SEN DIPANJAN ; STOCKHAMMER THOMAS ; KIM MOO YOUNG

Inventor(s): MOO YOUNG KIM ; NILS GUENTHER PETERS ; DIPANJAN SEN

Agent(s): MADDERNS PATENT AND TRADE MARK ATTORNEYS; SMART AND BIGGAR; ESTUDIO CLARKE MODET AND CO CHILE LIMITADA; JOSE ANDRES RINCON USCATEGUI; LOVELESS IAN MARK; GAGE MATTHEW K; DAWLEY BRIAN R

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SOUND PICKUP DEVICE

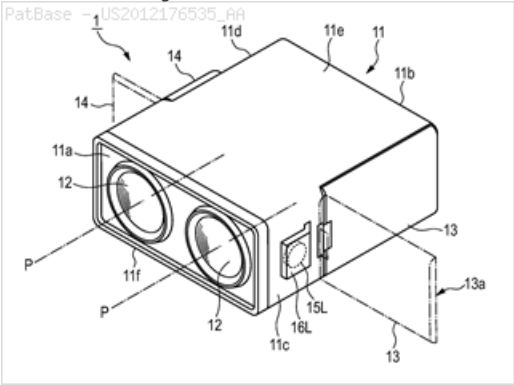
Abstract: Source: US2012176535A [EN] A sound pickup device is designed for an imaging apparatus including an objective lens and a camera casing. The sound pickup device includes first and second **microphone** holders fixed to the camera casing and each having an inner wall surface neighboring and facing a surface of the camera casing. First and second **microphone** units are held by the first and second **microphone** holders, respectively. The first and second **microphone** holders are located at left and right sides of the camera casing respectively while being separated from each other in a direction perpendicular to an optical axis of the objective lens. The aforesaid surface of the camera casing forms a sound reflecting surface which reflects incoming sound. Each of the first and second **microphone** units has a sound pickup surface facing the sound reflecting surface to pick up the sound reflected by the sound reflecting surface.

Classifications:

International (IPC 8-9): H04N5/225 H04R5/027 (Advanced/Invention); H04N5/232 (Advanced/Non-invention)

CPC: H04R5/027 H04R1/028 H04S7/30 H04S2400/15 H04N13/0239

US: 348/231.4 348/373 348/375 348/375P 348/423.1 348/E5.027 348/E50.27S 381/355 381/91 396/105 396/347



Family:

Publication number	Publication date	Application number	Application date
JP2012147137 A2	20120802	JP20110002548	20110107
US2012176535 AA	20120712	US20120343028	20120104
US8587715 BB	20131119	US20120343028	20120104

Priority:

JP20110002548 20110107

Probable Assignee: JVC KENWOOD CORP
Assignee(s): (std): JVC KENWOOD CORP ; TAKEDA MASAMI
Inventor(s): (std): TAKEDA MASAMI
Agent(s): LOUIS

Title: ELECTRONIC CIRCUITS INCLUDING A MOSFET AND A DUAL-GATE JFET

Abstract: Source: US2010271133A [EN] Electronic circuits and methods are provided for various applications including signal amplification. An exemplary electronic circuit comprises a MOSFET and a dual-gate JFET in a cascode configuration. The dual-gate JFET includes top and bottom gates disposed above and below the channel. The top gate of the JFET is controlled by a signal that is dependent upon the signal controlling the gate of the MOSFET. The control of the bottom gate of the JFET can be dependent or independent of the control of the top gate. The MOSFET and JFET can be implemented as separate components on the same substrate with different dimensions such as gate widths.

Classifications:

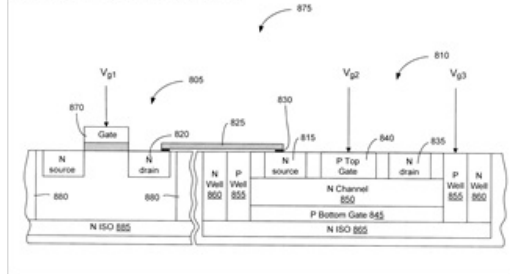
International (IPC 8-9): G10L19/008 H01L21/336 H01L21/337 H01L21/338 H01L21/761 H01L21/82 H01L21/8232 H01L21/8234 H01L21/8249 H01L27/02 H01L27/06 H01L27/08 H01L27/085 H01L27/088 H01L27/095 H01L27/098 H01L29/423 H01L29/66 H01L29/78 H01L29/808 H01L29/812 H03F1/02 H03F1/22 H03F1/56 H03F3/14 H03F3/16 H03F3/193 H03F3/195 H03F3/21 H03F3/24 H03H11/24 H04S3/00 H04S5/00 H04S7/00 (Advanced/Invention); H01L27/095 H01L27/098 H01L29/808 (Advanced/Non-invention); H04S3/00 H04S5/00 (Core/Invention); H01L21/8249 H01L27/08 (Core/Non-invention)

IPC: H01L27/088 H01L21/82 H01L29/78 H01L29/7835 H01L21/761 H01L29/0847 H01L27/095 H01L27/098 H03F1/0266 H03F1/223 H03F1/56 H03F3/1935 H03F3/195 H03F3/245 H03F2200/18 H03F2200/222 H03F2200/387 H01L27/085 H01L29/42316 H01L27/0617 H01L29/808 H01L29/66484 H01L29/7832 H04S7/306 G10L19/008 H04S3/004 H04S7/307 H04S2400/03 H04S2400/13 H04S2420/01 H01L27/0207 H01L29/7831

European: H01L27/06D4 H03F1/22B H03F3/195 H03F3/24B T01L27/095

US: 1/1 257/262 257/262P 257/262S 257/272 257/272S 257/E27.011 257/E27.011S 257/E27.014 257/E27.014S 257/E27.06 257/E27.060S 327/581 327/581S 330/277 330/277P 381/1 438/155

PatBase - US2010271133_AA



Family:

Publication number	Publication date	Application number	Application date
AU2014374182 AA	20150709	AU20140374182	20141218
AU2014374182 BB	20180315	AU20140374182	20141218
BR112016014949 A2	20170808	BR20161114949	20141218
CA2935339 AA	20160628	CA20142935339	20141218
CN102414984 A	20120411	CN201080017947	20100412
CN102414984 B	20151216	CN201080017947	20100412
CN104766887 A	20150708	CN201510002272	20150104
CN104768121 A	20150708	CN201410178258	20140429
CN105874820 A	20160817	CN201480071993	20141218
CN105874820 A8	20161102	CN201480071993	20141218
CN105874820 B	20171212	CN201480071993	20141218
CN107750042 A	20180302	CN201711094042	20141218
CN107770717 A	20180306	CN201711094047	20141218
CN107770718 A	20180306	CN201711094044	20141218
CN107835483 A	20180323	CN201711094063	20141218
DE602010020001 D1	20141224	DE201060020001T	20100412
EP2422447 A1	20120229	EP20100767521	20100412
EP2422447 A4	20130306	EP20100767521	20100412
EP2422447 B1	20141105	EP20100767521	20100412
EP2892079 A2	20150708	EP20140200578	20141230
EP2892079 A3	20151014	EP20140200578	20141230
EP3090573 A1	20161109	EP20140824318	20141218
IN201627021495 A	20160715	IN201627021495	20160622
JP2012525003 T2	20121018	JP20120507253T	20100412
JP2017507525 T2	20170316	JP20160543161T	20141218
JP2018014749 A2	20180125	JP20170179893	20170920
JP5386034 B2	20140115	JP20120507253T	20100412
JP6215478 B2	20171018	JP20160543161T	20141218
KR101335202 B1	20131129	KR20117027746	20100412
KR20120030379 A	20120328	KR20117027746	20100412
KR20160095042 A	20160810	KR20167017781	20141218
MX2016008696 A1	20161125	MX2016008696	20141218
RU2637990 C1	20171208	RU20160126479	20141218
TW201044558 A	20101216	TW20100112711	20100422
TWI351100 B	20111021	TW20100112711	20100422
US2010271133 AA	20101028	US20100686573	20100113
US2011215871 AA	20110908	US20110107411	20110513
US2012205724 AA	20120816	US20120443611	20120410
US2013248945 AA	20130926	US20130803792	20130314
US2015054038 AA	20150226	US20140531754	20141103
US2016111417 AA	20160421	US20150979337	20151222
US2016345116 AA	20161124	US20140109541	20141218
US7969243 BB	20110628	US20100686573	20100113
US8179197 BB	20120515	US20110107411	20110513
US8400222 BB	20130319	US20120443611	20120410
US8928410 BB	20150106	US20130803792	20130314
US9240402 BB	20160119	US20140531754	20141103
US9627374 BB	20170418	US20150979337	20151222
WO10123712 A1	20101028	WO2010US30770	20100412
WO15102920 A1	20150709	WO2014US71100	20141218

Priority:

CN201410178258	20140429	CN201480071993	20141218	US20090171689P	20090422
US20080070019	20080213	EP20100767521	20100412	JP20160543161T	20141218
US20100686573	20100113	US20120443611	20120410	US20110107411	20110513
US20130803792	20130314	US20140531754	20141103	US20140923578P	20140103
US20140109541	20141218	US20140923579P	20140103	WO2010US30770	20100412
US20150979337	20151222	US20140988617P	20140505	WO2014US71100	20141218
US20140988617P	20140103				

Probable Assignee: ACCO

Assignee(s): (std): ACCO ; ACCO SEMICONDUCTOR INC ; BRACALE ALEXANDRE ; BRACALE ALEXANDRE G ; DOLBY LABORATORIES LICENSING CORP ; DOLBY LABORATORIES INC ; MASLIAH DENIS ; MASLIAH DENIS A ; DOLBY LAB LICENSING CORP

Assignee(s): DAVIDSON GRANT A ; YEN KUAN CHIEH ; WILSON RHONDA ; SHUANG ZHIWEI ; BREEBAART DIRK J ; COOPER DAVID M ; ACCO SEMICONDUCTOR INC SUNNYVALE

Inventor(s): (std): ALEXANDRE BRACALE ; BRACALE ALEXANDRE ; BREEBAART DIRK J ; BREEBAART DIRK JEROEN ; COOPER DAVID M ; DAVID M COOPER ; DAVID S MCGRATH ; DAVIDSON GRANT A ; DENIS MASLIAH ; DIRK J BREEBAART ; DIRK JEROEN BREEBAART ; GRANT A DAVIDSON ; KUAN CHIEH YEN ; MASLIAH DENIS ; RHONDA WILSON ; SHUANG ZHIWEI ; WILSON RHONDA ; YEN KUAN CHIEH ; ZHIWEI SHUANG ; MASLIAH DENIS A ; BRACALE ALEXANDRE G

Inventor(s): MASLIAH DENIS SUNNYVALE ; DAVID MCOOPER ; BRACALE ALEXANDRE SUNNYVALE

Agent(s): SHELSTON IP PTY LTD; SMART AND BIGGAR; LAVOIX MUNICH; KLING SIMONE; TISCHNER OLIVER; DOLBY INT AB PATENT GROUP EUROPE; OHNUKI SHINSUKE; ITOH TADAHIKO; ITOH TADASHIGE; SOROKOLAT I PARTNERY PATENTNYE POVERENNYE; PETERS VERNY LLP; ROYSE LAW FIRM PC; HAYDEN ROBERT ET AL; ANDERSEN ROBERT L ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: EFFICIENT AUDIO CODING HAVING REDUCED BIT RATE FOR AMBIENT SIGNALS AND DECODING USING SAME

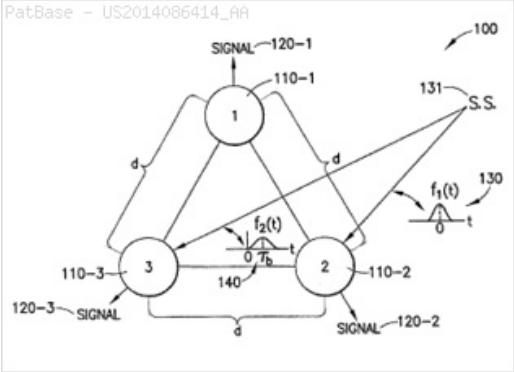
Abstract: Source: US2014086414A [EN] An apparatus creates first data stream(s) by processing first audio signal(s) and creates second data stream(s) by processing second audio signal(s). The processing includes detecting phase information from at least one of the second audio signal(s) so as to eliminate the phase information. The second data stream(s) are created without the phase information from the at least one second audio signal. The first and second data streams are output. Another apparatus receives first data stream(s) including first audio signal(s) and receives second data stream(s) including second audio signal(s). The second audio signal(s) include at least one second audio signal where phase information has been eliminated. Phase information is detected from one of a selected first audio signal or a selected second audio signal and is added into the at least one second audio signal. Output audio is rendered using the first and second audio signal(s).

Classifications:

International (IPC 8-9): G10L19/008 H04B3/00 H04R5/00
H04S3/00 (Advanced/Invention);
H04R3/00 (Advanced/Non-invention)

CPC: H04S3/008 G10L19/008 H04R3/005 H04S3/004 H04S2400/01
H04S2400/07 H04S2400/15 H04S2420/01 H04S2420/03

US: 1/1 381/17 381/80



Family:

Publication number	Publication date	Application number	Application date
US2014086414 AA	20140327	US20120625221	20120924
US9219972 BB	20151222	US20120625221	20120924

Priority:

US20100927663 20101119 US20110209738 20110815 US20120625221 20120924
US20120365468 20120203

Probable Assignee:

NOKIA TECHNOLOGIES OY

Assignee(s): (std):

NOKIA CORP ; NOKIA TECHNOLOGIES OY

Inventor(s): (std):

TAMMI MIKKO T ; VILERMO MIIKKA T

Agent(s):

HARRINGTON AND SMITH

Title: CALIBRATION OF HEADPHONES TO IMPROVE ACCURACY OF RECORDED AUDIO CONTENT

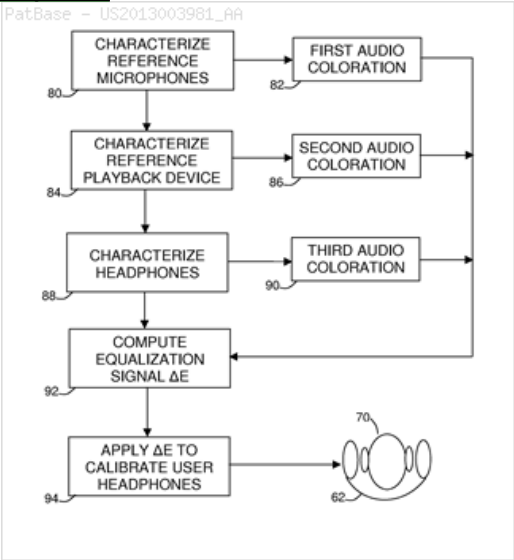
Abstract: Source: US2013003981A [EN] User headphones are calibrated in real time to improve the reproduction accuracy of recorded audio content. **Microphones** of a type used to record the audio content (including their orientation and recording characteristics) are characterized to indicate a first audio coloration. Audio playback devices of a type used to process the audio content are characterized to indicate a second audio coloration. Headphones of a type corresponding to the user headphones are characterized to indicate a third audio coloration. An equalization signal is computed based on the audio colorations, and is applied to calibrate the user headphones during playback of the audio content. A database of the characterizations is maintained so that calibration of different models of headphones using different playback devices can be accomplished for audio content recorded using different models of **microphones**.

Classifications:

International (IPC 8-9): H03G5/00 H04B15/00 H04R1/10 H04R29/00 H04S7/00 (Advanced/Invention)

CPC: H04S7/301 H04R29/004 H04S7/304 H04S2400/15 H04S2420/01

US: 1/1 381/58



Family:

Publication number	Publication date	Application number	Application date
US2013003981 AA	20130103	US20110171695	20110629
US9055382 BB	20150609	US20110171695	20110629

Priority:

US20110171695 20110629

Probable Assignee:

LANE RICHARD

Assignee(s): (std):

LANE RICHARD

Inventor(s): (std):

LANE RICHARD

Agent(s):

LIPSITZ AND MCALLISTER LLC

Title: SYSTEM AND APPARATUS FOR GENERATING A **HEAD** RELATED AUDIO TRANSFER FUNCTION

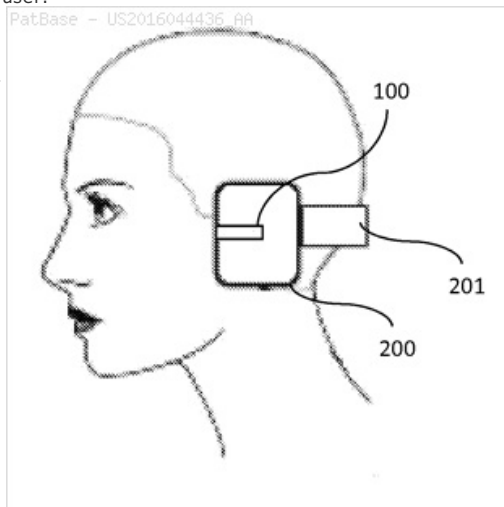
Abstract: Source: US2016044436A [EN] The present invention provides for an apparatus, system, and method for generating a **head** related audio transfer function in real time. Specifically, the present invention utilizes unique structural components including a tragus structure and an antihelix structure in connection with a **microphone** in order to communicate the location of a sound in three dimensional space to a user.

Classifications:

International (IPC 8-9): H04R1/10 H04R1/34 H04R5/00 H04R5/027 H04R5/033 H04S1/00 H04S5/00 H04S7/00 (Advanced/Invention); H04R1/10 H04R1/34 H04R5/027 H04R5/033 H04S1/00 (Advanced/Non-invention)

CPC: H04S7/302 H04R1/1075 H04R1/342 H04R5/027 H04R5/033 H04R2201/107 H04S1/007 H04S2400/01 H04S2420/01 H04R2205/022

US: 381/310



Family:

Publication number	Publication date	Application number	Application date
■ CN106664498 A	20170510	CN201580042484	20150731
■ EP3178239 A1	20170614	EP20150829017	20150731
■ EP3178239 A4	20180328	EP20150829017	20150731
■ IN201727004275 A	20170519	IN201727004275	20170206
■ JP2017528972 T2	20170928	JP20170506873T	20150731
■ KR20170041751 A	20170417	KR20177004429	20150731
■ US2016044436 AA	20160211	US20140485145	20140912
■ US2017272887 AA	20170921	US20170478696	20170404
■ US9615189 BB	20170404	US20140485145	20140912
■ WO16022422 A1	20160211	WO2015US43158	20150731

Priority:

US20140035025P 20140808 US20140485145 20140912 WO2015US43158 20150731
US20170478696 20170404

Probable Assignee: BONGIOVI ACOUSTICS LLC

Assignee(s): (std): BONGIOVI ACOUSTICS LLC ; BUTERA III JOSEPH ; BUTERA III JOSEPH G ; COPT RYAN ; SUMMERS III ROBERT ; COPT RYAN J ; SUMMERS III ROBERT J

Inventor(s): (std): BUTERA III JOSEPH ; BUTERA III JOSEPH G ; BUTERA JOSEPH III ; COPT RYAN ; COPT RYAN J ; SUMMERS III ROBERT ; SUMMERS III ROBERT J ; SUMMERS ROBERT J III ; SUMMERS ROBERT J ; BUTERA JOSEPH

Agent(s): SCHMIDBAUER ANDREAS KONRAD; MALLOY AND MALLOY PL; MATOS PETER A ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: BINAURAL AUDIO PROCESSING

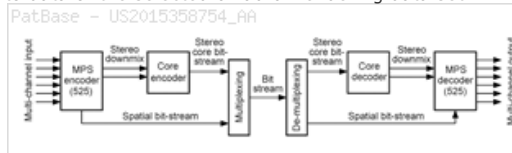
Abstract: Source: US2015358754A [EN] A transmitting device comprises a binaural circuit (601) which provides a plurality of binaural rendering data sets, each binaural rendering data set comprising data representing parameters for a virtual position binaural rendering. Specifically, **head** related binaural transfer function data may be included in the data sets. A representation circuit (603) provides a representation indication for each of the data sets. The representation indication for a data set is indicative of the representation used by the data set. An output circuit (605) generates a bitstream comprising the data sets and the representation indications. The bitstream is received by a receiver (701) in a receiving device. A selector (703) selects a selected binaural rendering data set based on the representation indications and a capability of the apparatus, and an audio processor (707) processes the audio signal in response to data of the selected binaural rendering data set.

Classifications:

International (IPC 8-9): H04R5/00 H04S1/00 H04S5/02 H04S7/00 (Advanced/Invention)

CPC: H04S7/30 H04S2420/01 H04S1/005 H04S2400/11

US: 381/17

**Family:**

Publication number	Publication date	Application number	Application date
BR112015016593 A2	20170711	BR20151116593	20131210
CN104904239 A	20150909	CN201380070515	20131210
EP2946571 A1	20151125	EP20130824017	20131210
IN04888CN2015 A	20160701	IN2015CN04888	20150811
JP2016507173 T2	20160307	JP20150552151T	20131210
MX2015008956 A1	20150928	MX20150008956	20131210
MX347551 B	20170502	MX20150008956	20131210
RU2015134363 A	20170222	RU20150134363	20131210
US2015358754 AA	20151210	US20130653278	20131210
US9860663 BB	20180102	US20130653278	20131210
WO14111765 A1	20140724	WO2013IB60760	20131210

Priority:

US20130653278 20131210

US20130752488P 20130115

WO2013IB60760 20131210

Probable Assignee: PHILIPS KONINKLL NV

Assignee(s): (std): KONINKL PHILIPS NV ; PHILIPS KONINKLL NV ; PHILIPS N V KONINKLL

Inventor(s): (std): ARNOLDUS WERNER JOHANNES OOMEN ; ERIK GOSUINUS PETRUS SCHUIJERS ; JEROEN GERARDUS HENRICUS KOPPENS ; KOPPENS JEROEN GERARDUS HENRICUS ; OOMEN ARNOLDUS WERNER JOHANNES ; SCHUIJERS ERIK GOSUINUS PETRUS

Agent(s): COOPS PETER; COOPS PETER ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PORTABLE BINAURAL RECORDING AND PLAYBACK ACCESSORY FOR A MULTIMEDIA DEVICE

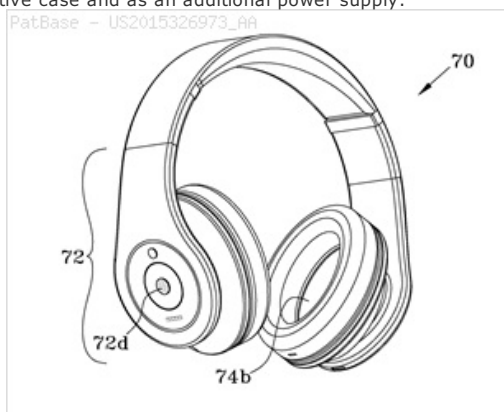
Abstract: Source: US2015326973A [EN] A portable binaural recording and playback accessory for a multimedia device includes headphones with embedded outside facing **microphones**, a protective mobile electronic device case with embedded stereo **microphone** preamplifier or audio video codec containing a **microphone** preamplifier, analog to digital converter/digital to analog converter (or digital signal processor), and a battery, allowing for the recording and playback of high quality binaural audio, while at the same time acting as a protective case and as an additional power supply.

Classifications:

International (IPC 8-9): G11B20/10 H04R5/033 H04S1/00
H04S7/00 (Advanced/Invention)

CPC: H04S7/30 G11B20/10527 H04R1/1041 H04R5/027
H04R2499/11 H04R1/1016 H04R5/033 H04S7/00 H04S2400/15
H04S1/00

US: 381/309



Family:

Publication number	Publication date	Application number	Application date
US2015326973 AA	20151112	US20150715238	20150518
US2015326987 AA	20151112	US20140272635	20140508

Priority:

US20140272635 20140508

US20150715238 20150518

Probable Assignee:

MARRIN MATTHEW

Assignee(s): (std):

MARRIN MATTHEW

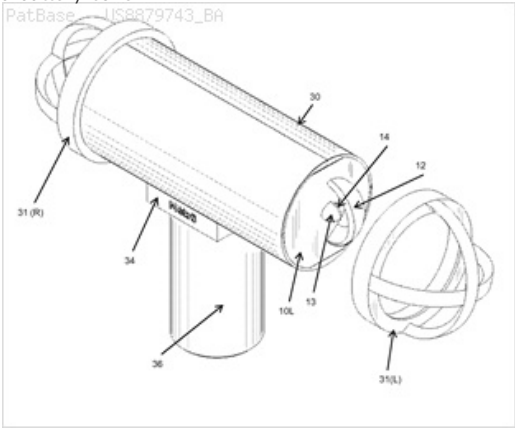
Inventor(s): (std):

MARRIN MATTHEW

Title: **EAR** MODELS WITH **MICROPHONES** FOR PSYCHOACOUSTIC IMAGERY

Abstract: Source: US8879743B [EN] A compact portable stereo **microphone** apparatus can acquire three dimensional immersive sounds which can then be recorded and played back in a standard audio recording device. The apparatus includes two elastomer fabricated simplified human **ear** elements (**ear** models) fitted at the ends of a cylindrical cavity of a **microphone** enclosure. The **ear** models may be protected against physical damage by end grills. A circuit board, **microphone** cable interface, power indicator, power switch and batteries may be located in the lower shell of the enclosure. A handle may serve as the hand grip for the **microphone** as well as a battery cover.

Classifications:
International (IPC 8-9): H04R5/00 (Advanced/Invention)
CPC: H04R1/342 H04R5/027
US: 181/129 381/26 381/365



Family:

Publication number	Publication date	Application number	Application date
US8879743 BA	20141104	US20110309012	20111201

Priority:
US20100425674P 20101221 US20110309012 20111201

Probable Assignee: MITRA SOUMYA

Assignee(s): (std): MITRA SOUMYA

Inventor(s): (std): MITRA SOUMYA

Agent(s): LARRY D

Title: BINAURAL SYNTHESIS

Abstract: Source: US2017105083A [EN] Embodiments relate to obtaining filter coefficients for a binaural synthesis filter; and applying a compensation filter to reduce artefacts resulting from the binaural synthesis filter; wherein the filter coefficients and compensation filter are configured to be used to obtain binaural audio output from a monaural audio input. The filter coefficients and compensation filter may be applied to the monaural audio input to obtain the binaural audio output. The compensation filter may comprise a timbre compensation filter.

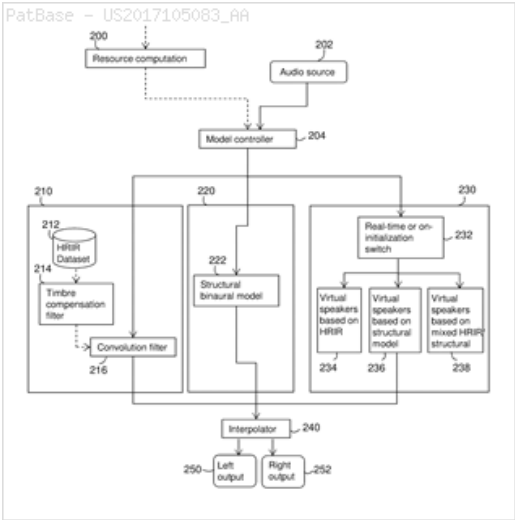
Classifications:

International (IPC 8-9): H04S1/00 H04S7/00 (Advanced/Invention)

CPC: H04S7/30 H04S2420/01 H04S1/007 H04S7/00 H04R5/033

H04S7/307 H04S2400/01

US: 381/1



Family:

Publication number	Publication date	Application number	Application date
GB201517844 A0	20151125	GB20150017844	20151008
GB2544458 A1	20170524	GB20150017844	20151008
US2017105083 AA	20170413	US20160232327	20160809

Priority:

GB20150017844 20151008

Probable Assignee: FACEBOOK INC

Assignee(s): (std): FACEBOOK INC ; TWO BIG EARS LTD

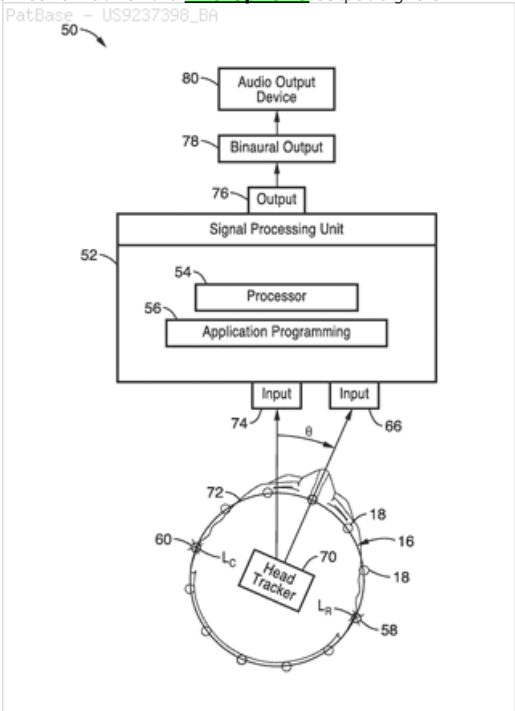
Inventor(s): (std): ABESH THAKUR ; MATTHEW HITCHMAN ; NAIR VARUN ; ROSS TAYLOR ; TOBIAS CARPENTER ; VARUN NAIR

Title: MOTION TRACKED BINAURAL SOUND CONVERSION OF LEGACY RECORDINGS

Abstract: Source: US9237398B [EN] Systems and methods are disclosed for a sound reproduction apparatus configured for receiving signals representative of the output of a plurality of microphones positioned to sample a sound field at points representing possible locations of a listener's left and right ears when positioned in said sound field at the location of the microphones, receiving a location of at least one sound source relative to said plurality of microphones, receiving orientation data of the listener's head, and calculating a binaural output using the sound source location, microphone output signals and orientation data. The binaural output includes the full-bandwidth of the microphone output signals.

Classifications:

International (IPC 8-9): H04R1/10 H04R1/32 (Advanced/Invention)
CPC: H04S7/304 H04S1/00 H04S7/306 H04S2400/11 H04S2400/15
US: 1/1



Family:

Publication number	Publication date	Application number	Application date
US9237398 BA	20160112	US20130103766	20131211

Priority:

US20120735906P 20121211 US20120736291P 20121212 US20130103766 20131211

Probable Assignee:

DYSONICS CORP

Assignee(s): (std):

DYSONICS CORP

Inventor(s): (std):

ALGAZI V RALPH ; DUDA RICHARD O

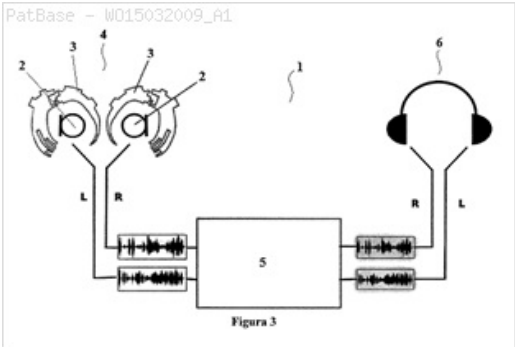
Agent(s):

JOHN P

Title: SMALL SYSTEM AND METHOD FOR DECODING AUDIO SIGNALS INTO BINAURAL AUDIO SIGNALS

Abstract: The invention relates to a small system and method for binaural recording, which can record sound and decode it into a three-dimensional format, making available the reproduction thereof in three dimensions using reproduction devices such as headphones or conventional headphones, where said method and system offer a portable recording solution of preferably millimeter-size dimensions, that can be built into professional or household recording devices. The invention further relates to a computer program for binaural recording, and to a method for producing the recording system of the invention.

Classifications:
International (IPC 8-9): H04R5/00 (Advanced/Invention)
CPC: H04S1/00 H04S2400/15



Family:

Publication number	Publication date	Application number	Application date
WO15032009 A1	20150312	WO2014CL00043	20140909

Priority:

US20130875178P 20130909

Probable Assignee: MUNOZ NUNEZ ALVARO

Assignee(s): (std): MUNOZ NUNEZ ALVARO ; RECABAL GUIRALDES PABLO ; TRAVIESO MANSO OSVALDO ; URRUTIA SOTO CRISTIAN

Inventor(s): (std): MUNOZ NUNEZ ALVARO ; RECABAL GUIRALDES PABLO ; TRAVIESO MANSO OSVALDO ; URRUTIA SOTO CRISTIAN

Agent(s): CAREY CARVALLO FRANCISCO ET AL

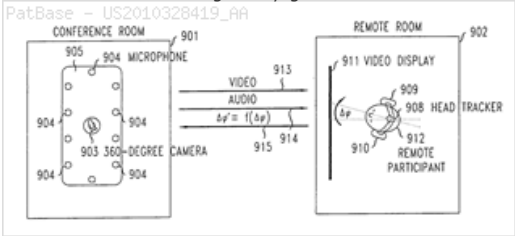
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD AND APPARATUS FOR IMPROVED MATCHING OF AUDITORY SPACE TO VISUAL SPACE IN VIDEO VIEWING APPLICATIONS

Abstract: Source: US2010328419A [EN] A method and apparatus for enabling an improved experience by better matching of the auditory space to the visual space in video viewing applications such as those that may be used in video teleconferencing systems and in the viewing of videos with associated audio (e.g., movies). In one embodiment, a viewer's location and **head** position relative to a video display screen is determined, one or more desired sound source locations (which may, for example, be related to a projection on the video display) are determined, and binaural stereo audio signals which accurately locate the sound sources at the desired sound source locations are advantageously generated.

Classifications:

International (IPC 8-9): H04N5/91 H04N7/14 H04N7/15 H04R5/02 H04S7/00 (Advanced/Invention)
CPC: H04N21/439 H04N21/44218 H04S7/304 H04N5/607 H04N7/142 H04S7/30 H04S7/303 H04S2400/11
European: H04N5/60S H04N7/14A2 H04S7/30 H04S7/30C1 H04S7/30C1H T04S400/11
US: 348/14.08 348/14.08OP 348/E7.085 348/E70.85S 381/306 381/306S 381/309 381/309S 386/E5.003 386/E50.03S



Family:

Publication number	Publication date	Application number	Application date
US2010328419 AA	20101230	US20090459303	20090630
WO11002729 A1	20110106	WO2010US40274	20100629

Priority:

US20090459303 20090630

Probable Assignee: ALCATEL LUCENT

Assignee(s): (std): ALCATEL LUCENT USA INC ; ETTER WALTER

Assignee(s): ALCATEL LUCENT ; CREDIT SUISSE AG

Inventor(s): (std): ETTER WALTER

Agent(s): DOCKET ADMINISTRATOR ROOM 3D 201E ALCATEL LUCENT USA INC; BROWN KENNETH M

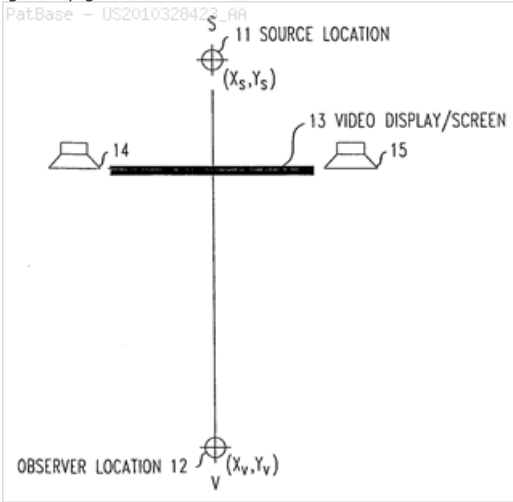
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD AND APPARATUS FOR IMPROVED MACTCHING OF AUDITORY SPACE TO VISUAL SPACE IN VIDEO
TELECONFERENCING APPLICATIONS USING WINDOW-BASED DISPLAYS

Abstract: Source: US2010328423A [EN] A method and apparatus for enabling an improved experience by better matching of the auditory space to the visual space in video viewing applications such as those that may be used in video teleconferencing systems using window-based displays. In particular, in accordance with certain illustrative embodiments of the present invention, one or more desired sound source locations are determined based on a location of a window in a video teleconference display device (which may, for example, comprise the image of a teleconference participant within the given window), and a plurality of audio signals which accurately locate the sound sources at the desired sound source locations (based on the location of the given window in the display) are advantageously generated.

Classifications:

International (IPC 8-9): H04M3/42 H04N7/15 (Advanced/Invention)
CPC: H04N7/142 H04N7/15
European: H04N7/14A2 H04N7/15
US: 348/14.08 348/14.16 348/14.160P 348/E7.083 348/E70.83S
370/260 379/158 379/202.01 379/93.21 455/416



Family:

Publication number	Publication date	Application number	Application date
US2010328423 AA	20101230	US20090459366	20090630
US8571192 BB	20131029	US20090459366	20090630

Priority:

US20090459366 20090630

Probable Assignee: ALCATEL LUCENT

Assignee(s): (std): ALCATEL LUCENT ; ETTER WALTER

Assignee(s): ALCATEL LUCENT USA INC ; CREDIT SUISSE AG

Inventor(s): (std): ETTER WALTER

Agent(s): ALCATEL LUCENT USA INC DOCKET ADMINISTRATOR; HARNESS DICKEY AND PIERCE

Title: A CAMERA AND ACCESSORY

Abstract: In order to provide a hand-held camera of the camcorder type with a three-dimensional binaural sound recording facility, ear structures (10) containing microphones are mounted on opposite sides of the camera body (8), which functions in use as a dummy head. The camera may also include binaural signal processing circuits for processing the signal from the microphones prior to recording in a tape recording mechanism integral with the camera. The invention also takes the form of a camera accessory comprising a pair of ears on a cowl or frame structure.

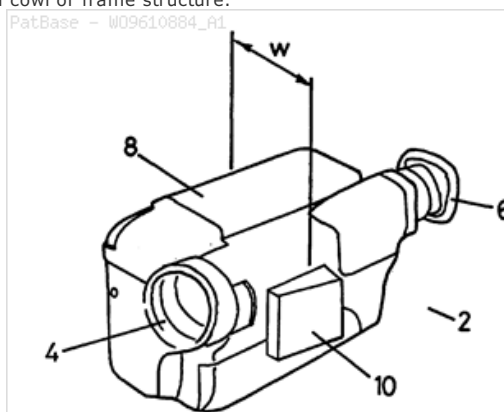
Classifications:

International (IPC 8-9): G03B17/02 G03B31/00 H04N5/225
H04N5/247 H04R5/027 H04S1/00 (Advanced/Invention);
H04N5/225 (Advanced/Non-invention);
G03B17/02 G03B31/00 H04N5/225 H04R5/00
H04S1/00 (Core/Invention)

International (IPC 1-7): H04N5/225 H04N5/247 H04S1/00

CPC: G03B17/02 G03B31/00 H04N5/2251 H04R5/027

European: G03B17/02 G03B31/00 H04N5/225C H04R5/027



Family:

Publication number	Publication date	Application number	Application date
CA2201356 AA	19970327	CA19952201356	19950929
EP0783816 A1	19970716	EP19950932830	19950929
GB9419832 A0	19941116	GB19940019832	19941001
JP10506512 T2	19980623	JP19960511518T	19950929
KR19970706684 A	19971103	KR19970702126	19950929
WO9610884 A1	19960411	WO1995GB02310	19950929

Priority:

GB19940019832 19941001 WO1995GB02310 19950929

Probable Assignee: CENTRAL RESEARCH LAB LTD

Assignee(s): (std): CENTRAL RESEARCH LAB LTD ; SIBBALD ALASTAIR

Assignee(s): CENTRAL RESEARCH LABORATORIES LIMITED ; CENTRAL RESEARCH LABORATORIES LTD

Inventor(s): (std): SIBBALD ALASTAIR

Agent(s): RIDOUT AND MAYBEE LLP

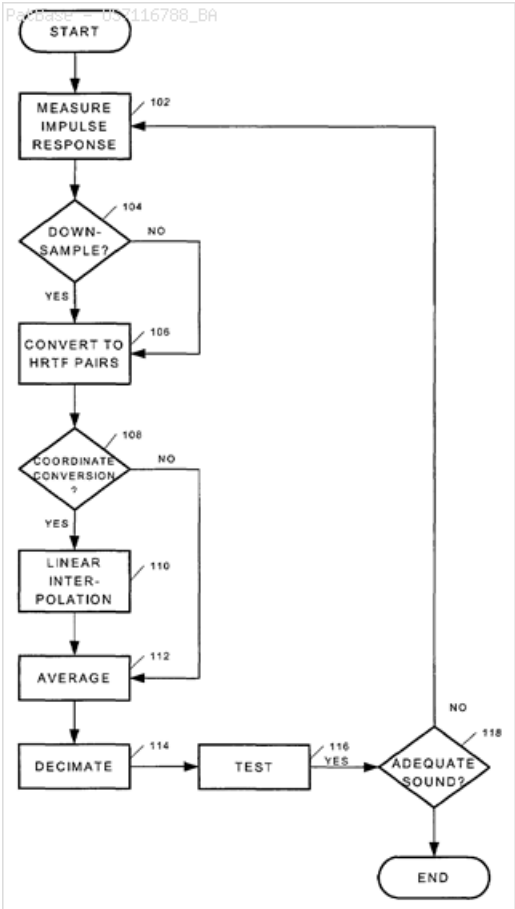
Designated states: AT BE CA CH DE DK ES FR GB GR IE IT JP KR LU MC NL PT SE US

Title: EFFICIENT HEAD RELATED TRANSFER FUNCTION FILTER GENERATION

Abstract: Source: US7116788B [EN] A method for generating a head related transfer function comprises downconverting each of a plurality of measured impulse responses from a first sampling frequency to a second sampling frequency and then converting each downconverted impulse responses to a set of head related transfer functions. Coordinate conversion can then be performed on each set of head related transfer functions. The converted sets of head related transfer functions are then averaged to generate one average head related transfer function. The average head related transfer function can be decimated to fit a filter engine of a target system.

Classifications:

International (IPC 8-9): H03G3/00 H04R5/00
H04R5/02 (Advanced/Invention)
CPC: H04S3/004 H04S2420/01
European: H04S3/00A2 T04S420/01
US: 381/17 381/309 381/310 381/61



Family:

Publication number	Publication date	Application number	Application date
US7116788 BA	20061003	US20020054359	20020117
US7590248 BA	20090915	US20060514028	20060830

Priority:

US20020054359 20020117 US20060514028 20060830

Probable Assignee: SYNAPTICS INC

Assignee(s): (std): CONEXANT SYSTEMS INC

Assignee(s): CONEXANT SYSTEMS WORLDWIDE INC ; LAKESTAR SEMI INC ; CONEXANT SYSTEMS LLC ; SYNAPTICS INC ; WELLS FARGO BANK NATIONAL ASSOCIATION ; BANK OF NEW YORK MELLON TRUST CO ; BANK OF NEW YORK MELLON TRUST CO NA ; BANK OF NEW YORK TRUST CO ; BANK OF NEW YORK TRUST CO NA ; BROOKTREE BROADBAND HOLDING INC ; CONEXANT INC

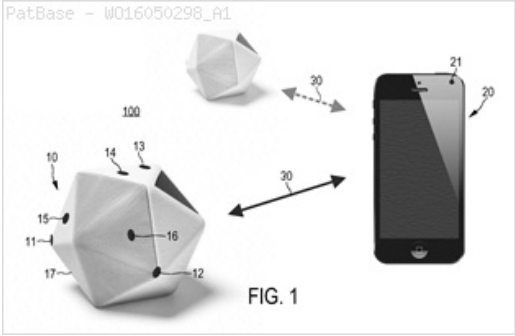
Inventor(s): (std): CHEN PAUL ; LAU HARRY

Agent(s): FARJAMI AND FARJAMI LLP

Title: AUDIO TERMINAL

Abstract: The present invention relates to an audio terminal (100). The audio terminal (100) comprises at least a first and a second **microphone** (11, 12) for capturing multi-channel audio data comprising at least a first and a second audio channel, a communication unit (21) for voice and/or data communication, and/or a recording unit for recording the **captured** multi-channel audio data, and, optionally, at least a first speaker (15) for playing back audio data comprising at least a first audio channel. The first and the second **microphone** (11, 12) are provided in a first device (10) and the communication unit (21) is provided in a second device (20) which is separate from the first device (10), wherein the first and the second device (10, 20) are adapted to be connected with each other via a local wireless transmission link (30), wherein the first device (10) is adapted to stream the multi-channel audio data to the second device (20) via the local wireless transmission link (30) and the second device (20) is adapted to receive and process and/or store the multi-channel audio data streamed from the first device (10).

Classifications:
International (IPC 8-9): H04R5/04 H04S3/00 (Advanced/Invention); H04R5/04 (Advanced/Non-invention)
CPC: H04S3/002 H04R5/04 H04R2420/07 H04S3/004 H04S2400/15 H04S2420/01



Family:

Publication number	Publication date	Application number	Application date
EP3228096 A1	20171011	EP20140777648	20141001
WO16050298 A1	20160407	WO2014EP71083	20141001

Priority:

WO2014EP71083 20141001

Probable Assignee: BINAURIC SE

Assignee(s): (std): BINAURIC SE

Inventor(s): (std): IMMISCH LARS ; KRUEGER HAUKE ; WIESE DETLEF

Agent(s): EISENFUEHR SPEISER; EISENFUEHR SPEISER PATENTANWAELTE RECHTSANWAELTE PARTGMBB

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: STEREOPHONIC SOUND REPRODUCTION WITH ACOUSTICALLY MATCHED RECEIVER UNITS EFFECTING FLAT FREQUENCY RESPONSE AT A LISTENER{3 S **EARDRUMS**

Abstract: Source: US3985960A [EN] A **binaural sound** recording and reproduction system which utilizes a recording mannequin equipped with an electroacoustic model of the human auditory tract to thereby record the sound pressure which would be incident on a listener's **eardrum** and also utilizes a headset with in-**ear transducers** or receivers which exhibit a flat frequency response as measured at the listener's **eardrums** is described. The receiver units utilize acoustic impedance matching to the listener's **ear** canal to effect the flat frequency response characteristic. An electrical equalizer circuit to facilitate the use of the subject in-**ear** receivers with conventionally recorded sound is also disclosed.

Classifications:

International (IPC 8-9): H04R1/10 H04R1/20 H04R29/00

H04R5/027 (Advanced/Invention);

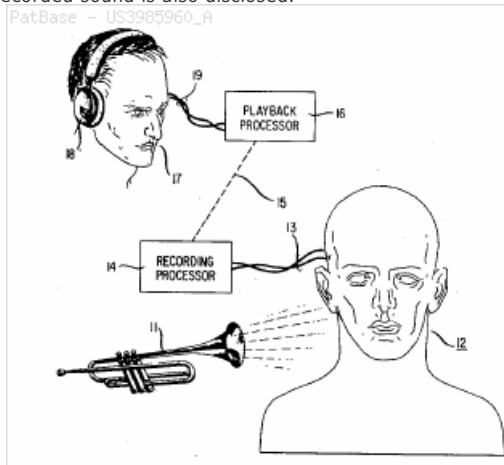
H04R1/10 H04R1/20 H04R29/00 H04R5/00 (Core/Invention)

International (IPC 1-7): H04R1/02 H04R5/00

CPC: H04R1/1016 H04R1/20 H04R5/027 H04R29/001

European: H04R1/10B H04R1/20 H04R29/00 H04R29/00L
H04R5/027

US: 179/1G 381/23.1 381/309 381/328 381/380



Family:

Publication number	Publication date	Application number	Application date
US3985960 A	19761012	US19750554594	19750303
USB554594 I	19760120	US19750554594	19750303

Priority:

US19750554594 19750303

Probable Assignee:

BELL TELEPHONE LABOR INC

Assignee(s): (std):

BELL TELEPHONE LABOR INC

Assignee(s):

BELL TELEPHONE LABORATORIES INC

Inventor(s): (std):

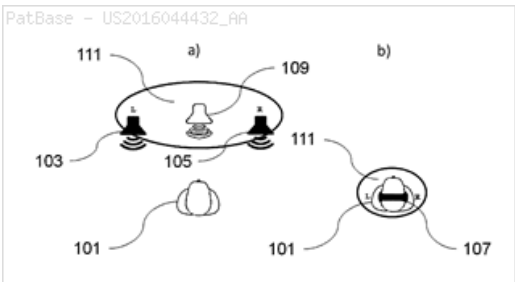
WALLACE R ; WALLACE JR ROBERT LEE

Title: AUDIO SIGNAL PROCESSING APPARATUS

Abstract: Source: US2016044432A [EN] The invention relates to an audio signal processing apparatus for processing an audio signal, the audio signal processing apparatus comprising: a converter configured to convert a stereo audio signal into a binaural audio signal; and a determiner configured to determine upon the basis of an indicator signal whether the audio signal is a stereo audio signal or a binaural audio signal, the indicator signal indicating whether the audio signal is a stereo audio signal or a binaural audio signal, the determiner being further configured to provide the audio signal to the converter if the audio signal is a stereo audio signal.

Classifications:

International (IPC 8-9): H04S1/00 H04S3/00
H04S7/00 (Advanced/Invention);
H04S1/00 H04S3/00 (Advanced/Non-invention)
CPC: H04S3/004 H04S1/005 H04S7/308 H04S2420/01 H04S2420/03
US: 381/17



Family:

Publication number	Publication date	Application number	Application date
CN105075294 A	20151118	CN201380074097	20130430
CN105075294 B	20180309	CN201380074097	20130430
EP2946573 A1	20151125	EP20130720905	20130430
US2016044432 AA	20160211	US20150921588	20151023
WO14177202 A1	20141106	WO2013EP59039	20130430

Priority:

US20150921588 20151023 WO2013EP59039 20130430

Probable Assignee: HUAWEI TECHNOLOGIES CO LTD

Assignee(s): (std): GROSCHÉ PETER ; HUAWEI TECH CO LTD ; VIRETTE DAVID

Assignee(s): HUAWEI TECHNOLOGIES CO ; HUAWEI TECHNOLOGIES CO LTD

Inventor(s): (std): GROSCHÉ PETER ; VIRETTE DAVID

Agent(s): KREUZ GEORG MARIA; KREUZ GEORG M

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: BINAURALLY INTEGRATED CROSS-CORRELATION AUTO-CORRELATION MECHANISM

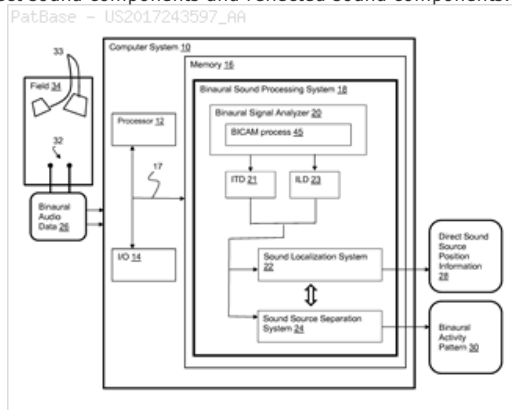
Abstract: Source: US2017243597A [EN] A sound processing system, method and program product for estimating parameters from binaural audio data. A system is provided having: a system for inputting binaural audio; and a binaural signal analyzer (BICAM) that: performs autocorrelation on both the first channel and second channel to generate a pair of autocorrelation functions; performs a first layer cross-correlation between the first channel and second channel to generate a first layer cross-correlation function; removes the center peak from the first layer cross-correlation function and a selected autocorrelation function to create a modified pair; performs a second layer cross-correlation between the modified pair to determine a temporal mismatch; generates a resulting function by replacing the first layer cross correlation function with the selected autocorrelation function using the temporal mismatch; and utilizes the resulting function to determine ITD parameters and interaural level difference ILD parameters of the direct sound components and reflected sound components.

Classifications:**International (IPC 8-9):** G10L21/0264 G10L21/0308 H04R5/00

H04S1/00 H04S7/00 (Advanced/Invention)

CPC: H04R25/552 H04R2225/43 G10L21/0272 G10L21/0264

G10L21/0308 G10L2021/02082 H04S1/00 H04S7/303 H04S2420/01

**Family:**

Publication number	Publication date	Application number	Application date
EP3165000 A1	20170510	EP20150831928	20150814
EP3165000 A4	20180307	EP20150831928	20150814
JP2017530579 T2	20171012	JP20170503897T	20150814
US2017243597 AA	20170824	US20150500230	20150814
WO16025812 A1	20160218	WO2015US45239	20150814

Priority:

US20140037135P 20140814

US20150500230 20150814

WO2015US45239 20150814

Probable Assignee: RENSSELAER POLYTECHNIC INST**Assignee(s):** (std): RENSSELAER POLYTECH INST**Assignee(s):** RENSSELAER POLYTECHNIC INST**Inventor(s):** (std): BRAASCH JONAS**Agent(s):** APLEYARD LEES IP LLP; HOFFMAN MICHAEL F

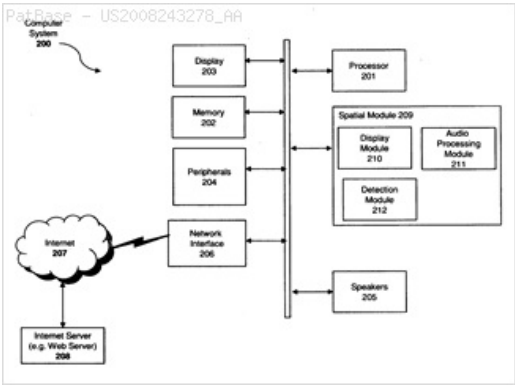
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SYSTEM AND METHOD FOR PROVIDING VIRTUAL SPATIAL SOUND WITH AN AUDIO VISUAL PLAYER

Abstract: Source: US2008243278A [EN] A method and machine-readable medium for providing virtual spatial sound with an audio visual player are disclosed. Input audio is processed into output audio having spatial attributes associated with the spatial sound represented in a room display.

Classifications:

International (ipc 8-9): G06F3/00 G10L21/00
G10L21/02 (Advanced/Invention);
G06F3/00 G10L21/00 (Core/Invention)
CPC: H04S7/304 H04S7/40 H04S2420/01 H04S2420/03
European: H04S7/30C1H H04S7/40 T04S420/01 T04S420/03
US: 381/1 381/119 381/17 700/94 700/94P 704/200 704/270
704/278 704/E21.003 704/E21.003S



Family:

Publication number	Publication date	Application number	Application date
US2008243278 AA	20081002	US20070731682	20070330
US7792674 BB	20100907	US20070731682	20070330

Priority:

US20070731682 20070330

Probable Assignee: SMITH MICRO SOFTWARE INC

Assignee(s): (std): DALTON ROBERT J E ; DOLASIA RUPEN ; SMITH MICRO SOFTWARE INC

Assignee(s): MXPLAY INC

Inventor(s): (std): DALTON JR ROBERT J E ; DALTON ROBERT J E ; DOLASIA RUPEN

Inventor(s): DALTON ROBERT JE

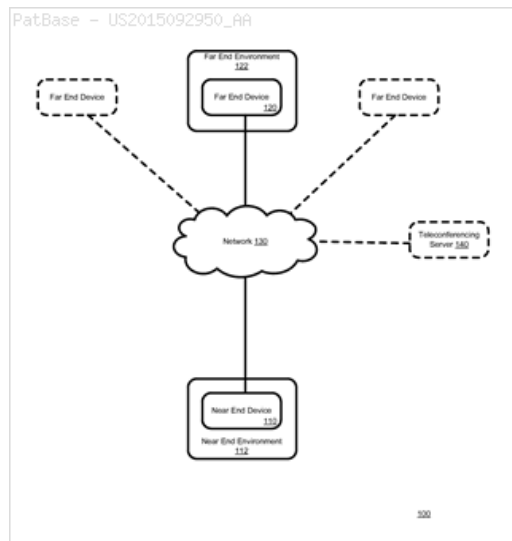
Agent(s): BLAKELY SOKOLOFF TAYLOR AND ZAFMAN LLP

Title: MATCHING REVERBERATION IN TELECONFERENCING ENVIRONMENTS

Abstract: Source: US2015092950A [EN] A system and method of matching reverberation in teleconferencing environments. When the two ends of a conversation are in environments with differing reverberations, the method filters the reverberation so that when both signals are output at the near end (e.g., the audio signal from the far end and the sidetone from the near end), the reverberations match. In this manner, the user does not perceive an annoying difference in reverberations, and the user experience is improved.

Classifications:

International (IPC 8-9): G10L21/0208 H04M1/60 H04M3/56 H04M9/08 H04R3/00 H04R3/04 H04S7/00 (Advanced/Invention); G10K15/08 H04M3/18 H04R27/00 (Advanced/Non-invention)
CPC: H04M3/568 G10K15/08 H04M3/18 H04M9/082 H04R27/00 H04S7/306 H04S2400/01 H04S2420/01 H04M1/6033 H04R3/04 G10L21/0208 G10L2021/02082
US: 1/1 381/66

**Family:**

Publication number	Publication date	Application number	Application date
US2015092950 AA	20150402	US20140489907	20140918
US2016323454 AA	20161103	US20160208379	20160712
US9426300 BB	20160823	US20140489907	20140918
US9749474 BB	20170829	US20160208379	20160712

Priority:

US20130883663P 20130927 US20140489907 20140918 US20160208379 20160712

Probable Assignee: DOLBY LABORATORIES LICENSING CORP

Assignee(s): (std): DOLBY LAB LICENSING CORP ; DOLBY LABORATORIES LICENSING CORP

Inventor(s): (std): KIM DOH SUK ; SPITTLE GARY

Agent(s): CHARLES LAWRENCE; CHARLES H; FOUNTAINHEAD LAW GROUP PC

Title: BINAURAL AUDIO SYSTEMS AND METHODS

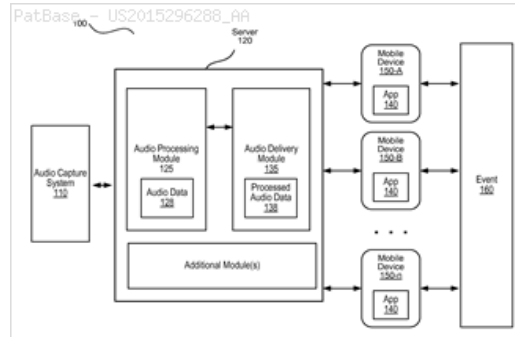
Abstract: Source: US2015296288A [EN] In order to achieve an enhanced audio experience, audio information, for example a movie soundtrack having binaural components, may be stored on a mobile device prior to the beginning of a movie presentation in a theater. Responsive to an audio sync signal presented to the mobile device, the audio information may be played back from the mobile device in a manner synchronized to display of the movie on a theater screen. The audio sync signal may be a high-frequency signal emitted by a loudspeaker in the theater. The audio information may be customized for a user. For example, via use of a binaural audio system, a user of a first mobile device may experience a movie presentation in a theater in a first language, and user of a second mobile device may experience the same movie presentation in the theater in a second language.

Classifications:

International (IPC 8-9): G10L19/018 H04N21/414 H04N21/436 H04R1/10 H04S1/00 (Advanced/Invention)

CPC: H04R1/1041 H04R1/1075 H04R5/04 H04S1/007 G10L19/018 H04S2400/15 H04R5/033

US: 381/2 381/77

**Family:**

Publication number	Publication date	Application number	Application date
CN106464953 A	20170222	CN201580032036	20150414
US2015296288 AA	20151015	US20150686445	20150414
US2017034638 AA	20170202	US20160291589	20161012
WO15160804 A1	20151022	WO2015US25745	20150414

Priority:

US20140979930P 20140415 US20150102390P 20150112 US20150686445 20150414
US20160291589 20161012 WO2015US25745 20150414

Probable Assignee: ANASTAS CHRIS T

Assignee(s): (std): ANASTAS CHRIS T

Inventor(s): (std): ANASTAS CHRIS T

Agent(s): FELLOWS GERALD L

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROJECTION DISPLAY WITH MOTION COMPENSATION

Abstract: Source: US2007176851A [EN] A control system for a projection display includes means for compensating for relative movement between a projection display and a projection surface and/or between a projected image and a viewer. The system may compensate for image shake. Movement may be detected optically, through motion or inertial detection, etc. The image may be compensated by modifying image properties such as resolution, by modifying an image bitmap, by moving a display engine or a display engine component, and/or by deflecting the projection axis, for example. According to an embodiment the projection display may include a display engine utilizing a laser scanner.

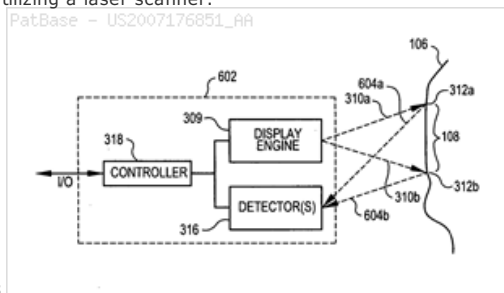
Classifications:

International (IPC 8-9): A63F9/24 G01C9/00 G01P13/00 G01P15/00 G01P15/14 G02B27/18 G03B21/00 G03B21/14 G03B21/26 G06F3/033 G09G3/00 G09G3/10 G09G3/28 G09G3/36 H04N13/04 H04N5/74 H04N9/31 (Advanced/Invention); G01C9/00 G01P13/00 G01P15/00 G01P15/14 G02B27/18 G03B21/00 G03B21/14 G03B21/26 G09G3/00 G09G3/04 G09G3/28 G09G3/36 H04N13/04 H04N5/74 H04N9/31 (Core/Invention)

CPC: H04N9/3185 G09G2320/0261 G09G3/003 G02B26/101 G09G3/002 G09G5/363 G09G5/393 G09G2320/0285 G09G2340/145 G09G2360/145 H04N5/144 H04N5/74 H04N5/7416 H04N9/31 H04N9/3102 H04N9/3129 H04N9/3179 H04N9/3194 G03B21/28 G03B33/06 G03B35/26 H04M1/0272 H04N13/0422 H04N13/0427 H04N13/0434 H04N13/0459 G03B2206/00 G03B21/142 G02B27/0093 G03B21/14 G03B29/00 G09G3/001 G09G2340/0492 H04N9/3161 H04N9/3173

European: G02B26/10B G02B27/00T G03B21/14 G03B21/28 G03B29/00 G03B33/06 G03B35/26 G09G3/00B2 G09G3/00B4 G09G5/36C G09G5/393 H04M1/02A14F H04N13/04B H04N13/04D H04N13/04G3 H04N13/04P H04N5/14M H04N5/74 H04N9/31 H04N9/31A H04N9/31B H04N9/31R5L H04N9/31R9 H04N9/31S H04N9/31S3 H04N9/31T1 H04N9/31V S09G3/00B S09G320/02M S09G320/02R S09G340/04P S09G340/14C S09G360/14S T04N5/74M

US: 345/158 345/158S 345/32 345/32P 348/51 348/51P 348/744 348/744S 348/E13.001 348/E13.001S 348/E9.025 348/E9.025S 353/8 353/8P 463/31 463/31P 702/127 702/127S 702/141 702/141P 702/150 702/150S

**Family:**

Publication number	Publication date	Application number	Application date
US2007176851 AA	20070802	US20060635799	20061206
US2007282564 AA	20071206	US20070761908	20070612
US2009046140 AA	20090219	US20080134731	20080606
US2009079941 AA	20090326	US20070858696	20070920
US2011111849 AA	20110512	US20110007508	20110114
WO07067720 A2	20070614	WO2006US46799	20061206
WO07067720 A3	20090416	WO2006US46799	20061206
WO08157061 A1	20081224	WO2008US65911	20080605

Priority:

US20050742638P 20051206 US20060635799 20061206 US20070761908 20070612
US20070858696 20070920 US20080134731 20080606 US20110007508 20110114

Probable Assignee: MICROVISION INC

Assignee(s): (std): MICROVISION INC ; MILLER JOSHUA O ; ROSEN ANDREW T ; WILLEY STEPHEN R ; WIKLOF CHRISTOPHER A ; SPRAGUE RANDALL B ; LASHMET DAVID E

Inventor(s): (std): DEJONG CHRISTIAN D ; DEJONG CHRISTIAN DEAN ; LASHMET DAVID ; LASHMET DAVID E ; MILLER JOSHUA O ; ROSEN ANDREW T ; SCHAAF MICHAEL L ; WILLEY STEPHEN R ; WIKLOF CHRISTOPHER A ; SPRAGUE RANDALL B

Agent(s): GRAYBEAL JACKSON HALEY LLP; MICROVISION INC; WILLS KEVIN D

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: METHOD FOR EVALUATING SOUND AND SYSTEM FOR CARRYING OUT THE SAME

Abstract: Source: US2002183947A [EN] A system and method (and storage media) for identifying the category of the source noise and sound by using the physical factors derived from the autocorrelation function (ACF) and the interaural crosscorrelation function (IACF) which are ever changing in the time domain based on the model of human auditory brain function system. A method for evaluating a sound comprises the steps of: using the sound recorder to **capture** and record the acoustic signal; calculating the ACF from the acoustic signal using a CPU; calculating ACF factors extracted from the calculated ACF using the CPU; and identifying the kinds of the noise based on the ACF factors. Thereby the unknown noise source can be identified what it is (such as automobile noise, and factory noise), and can be identified its type such as type of cars or type of machines.

Classifications:

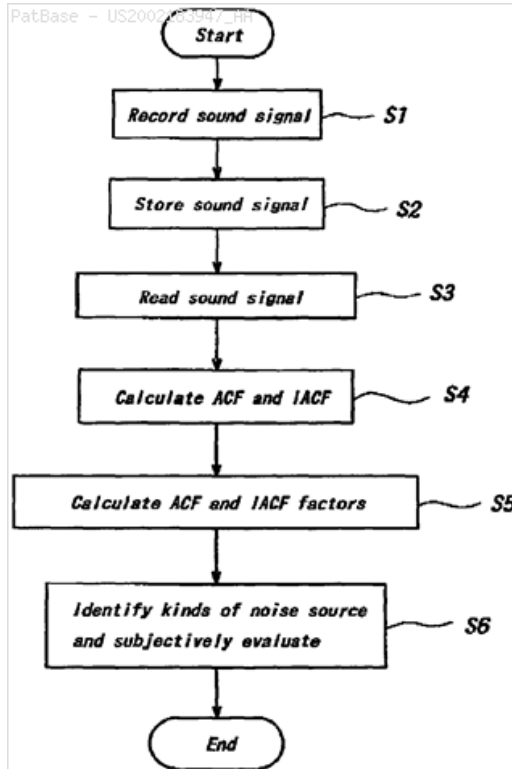
International (IPC 8-9): G01H17/00 G01H3/00 G01H3/04 G01H3/10 G01M99/00 G10G1/00 G10H1/00 G10K15/00 G10L15/10 H04R29/00 (Advanced/Invention); G01H17/00 G01H3/00 G10G1/00 G10H1/00 G10K15/00 H04R29/00 (Core/Invention)

International (IPC 1-7): G01H17/00 G01H3/00 G01M19/00 G06F19/00 G10G1/00 G10H7/00 G10K15/00 G10L101/14 G10L15/10 H04R29/00 H04R5/00

CPC: G01H3/04 G01H3/10

European: G01H3/04 G01H3/10

US: 381/71.14 702/189 702/75 704/216



Family:

Publication number	Publication date	Application number	Application date
JP2002062186 A2	20020228	JP20000246418	20000815
JP2003057108 A2	20030226	JP20010242267	20010809
JP2003121253 A2	20030423	JP20020205577	20020715
JP2004294444 A2	20041021	JP20040137611	20040506
JP3350713 B2	20021125	JP20000246418	20000815
JP3546236 B2	20040721	JP20020205577	20020715
JP3584287 B2	20041104	JP20010242267	20010809
JP4590545 B2	20101201	JP20040137611	20040506
US2002183947 AA	20021205	US20020110307	20020710
US6675114 BB	20040106	US20020110307	20020710
WO04084176 A1	20040930	WO2001JP07031	20010815

Priority:

JP20000246418 20000815 JP20010242267 20010809 JP20020205577 20020715
 WO2001JP07031 20010815 JP20040137611 20040506

Probable Assignee: YOSHIMASA ELECTRONIC INC

Assignee(s): (std): ANDO YOICHI ; KOBE UNIV ; SAKAI HIROYUKI ; UNIV KOBE

Assignee(s): YOSHIMASA ELECTRONIC INC ; KOBE UNIVERSITY

Inventor(s): (std): ANDO YOICHI ; SAKAI HIROYUKI

Agent(s): SUGIMURA KOSAKU

Designated states: US

Title: Method and apparatus for generating audiospatial effects

Abstract: Source: US5487113A [EN] A method and apparatus is disclosed for producing one or more audiospatial effects in an original audio signal. A spatially disorienting signal, typically a modified white noise pattern, is combined with the original audio signal. A spatially reorienting signal is further combined with the original audio signal in order to give a listener the perception, upon hearing the original audio signal played back, that the sound emanates from a predetermined direction.

Classifications:

International (IPC 8-9): G10K15/00 H04S1/00 H04S5/00

H04S7/00 (Advanced/Invention);

G10K15/00 H04S1/00 H04S5/00 H04S7/00 (Core/Invention)

International (IPC 1-7): G10K15/00 H04R3/00 H04S1/00 H04S3/00

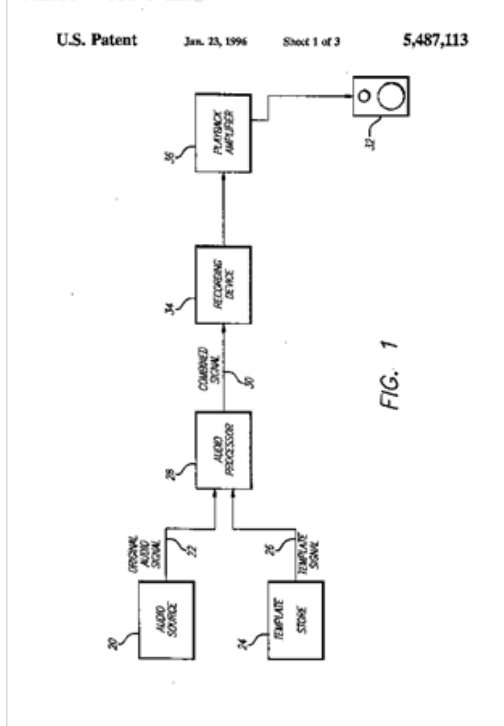
H04S5/00 H04S7/00

CPC: H04S1/002 H04S1/005

European: H04S1/00A T04S1/00A2

US: 381/1 381/17

PatBase - US5487113_A



Family:

Publication number	Publication date	Application number	Application date
CA2135721 AA	19950513	CA19942135721	19941114
EP0653897 A2	19950517	EP19940307841	19941025
EP0653897 A3	19960221	EP19940307841	19941025
JP8023600 A2	19960123	JP19940279003	19941114
US5487113 A	19960123	US19930151362	19931112

Priority:

CA19942135721 19941114 US19930151362 19931112

Probable Assignee: SPHERIC AUDIO LABORATORIES INC

Assignee(s): (std): SPHERIC AUDIO LAB INC

Assignee(s): SPHERIC AUDIO LABORATORIES INC ; SUFUEITSUKU AUDIO LAB INC ; DOLESHAL DAVID F ; MARK STEVEN D

Inventor(s): (std): DEBUITSUDO EFU DOORUSHIYARU ; DOLESHAL DAVID F ; MARK STEVEN D ; SUTEIIBUN DEII MAAKU ; DOLESHAL DAVID

Agent(s): RICHES MCKENZIE AND HERBERT LLP

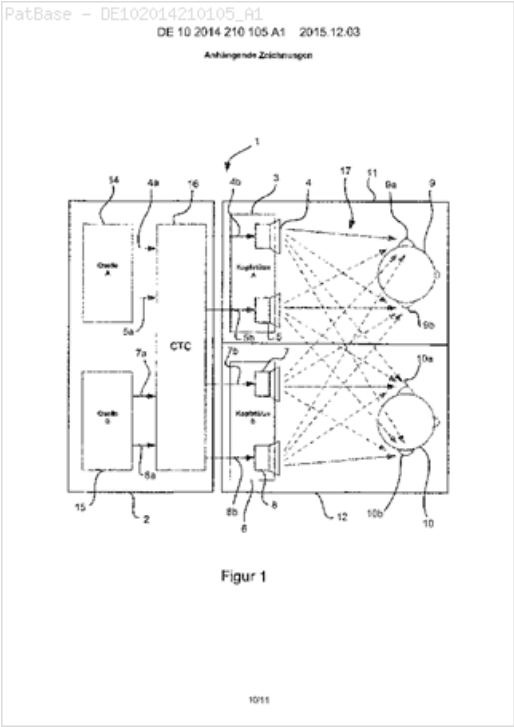
Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

Title: ZONENBASIERTE TONWIEDERGABE IN EINEM FAHRZEUG ZONE BASED SOUND IN A VEHICLE (Machine translation)

Abstract: Source: DE102014210105A1 [DE] Zur zonenbasierten Tonwiedergabe in einem Fahrzeug, bei dem der Innenraum des Fahrzeugs in Zonen (11, 12) eingeteilt ist, sind in jeder Zone (11, 12) mindestens zwei der jeweiligen Zone (11, 12) zugeordnete Lautsprecher (4, 5, 7, 8) vorgesehen. Mit den jeweiligen Lautsprechern (4, 5, 7, 8) erfolgt eine binaurale Tonwiedergabe in der Zone (11, 12). **Machine translation:** To the zone-based sound in a vehicle, in which the interior of the vehicle into zones (11, 12) located, in each zone (11, 12) at least two of the respective zone (11, 12) associated with the loudspeaker (4, 5, 7, 8) are provided. With the respective loudspeakers (4, 5, 7, 8) takes place in a **binaural sound** reproduction of the zone (11, 12).

Classifications:

International (IPC 8-9): H04R27/00 H04R3/12
H04R5/00 (Advanced/Invention)
CPC: H04R5/04 B60R11/0217 H04R1/403 H04R1/406 H04R3/005
H04R3/12 H04R5/023 H04R2410/05 H04R2420/01 H04R2420/03
H04R2430/01 H04R2499/13 H04S5/005 H04S7/303 H04S2420/01
B60R2011/0017 B60N2/879



Family:

Publication number	Publication date	Application number	Application date
DE102014210105 A1	20151203	DE201410210105	20140527

Priority:

DE201410210105 20140527

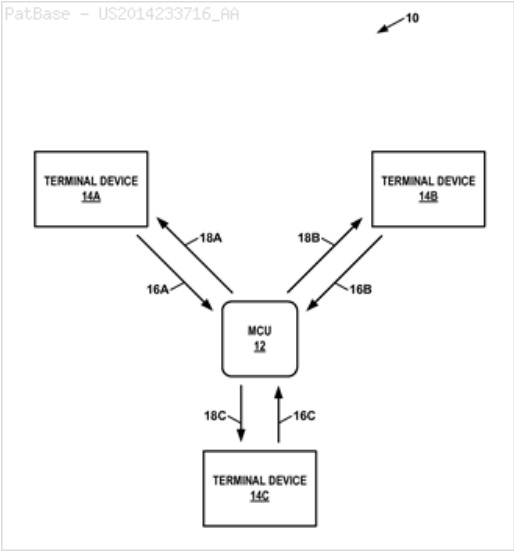
Probable Assignee: BAYERISCHE MOTOREN WERKE AG
Assignee(s): (std): BAYERISCHE MOTOREN WERKE AG
Inventor(s): (std): BEHR STEFAN

Title: TELECONFERENCING USING STEGANOGRAPHICALLY-EMBEDDED AUDIO DATA

Abstract: Source: US2014233716A [EN] A multi-party control unit (MCU) generates, based on audio data streams that represent sounds associated terminal devices, a mixed audio data stream. In addition, the MCU modifies the mixed mono audio data to steganographically embed sub-streams that include representations of the mono audio data streams. A terminal device receives the modified mixed audio data stream. When the terminal device is configured for stereo playback, the terminal device performs an inverse steganographic process to extract, from the mixed audio data stream, the sub-streams. The terminal device generates and outputs multi-channel audio data based on the extracted sub-streams and the mixed audio data stream. When the terminal device is not configured for stereo playback, the terminal device outputs sound based on the mixed audio data stream without extracting the embedded sub-streams.

Classifications:

International (IPC 8-9): G10L19/00 G10L19/018 H04M3/56 H04N7/15 H04S1/00 H04S5/02 (Advanced/Invention); G10L19/018 (Advanced/Non-invention)
CPC: H04M3/568 G10L19/018
US: 1/1 379/202.01



Family:

Publication number	Publication date	Application number	Application date
CN105191269 A	20151223	CN201480008134	20140123
CN105191269 B	20171121	CN201480008134	20140123
EP2959669 A1	20151230	EP20140704447	20140123
IN04270CN2015 A	20160701	IN2015CN04270	20150716
JP2016514394 T2	20160519	JP20150558018T	20140123
US2014233716 AA	20140821	US20130771957	20130220
US9191516 BB	20151117	US20130771957	20130220
WO14130199 A1	20140828	WO2014US12788	20140123

Priority:

US20130771957 20130220 WO2014US12788 20140123

Probable Assignee: QUALCOMM INC

Assignee(s): (std): QUALCOMM INC

Inventor(s): (std): SINDER DANIEL J ; VILLETTE STEPHANE PIERRE

Agent(s): LOVELESS IAN MARK; SHUMAKER AND SIEFFERT PA; VREDEVELD ALBERT W

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

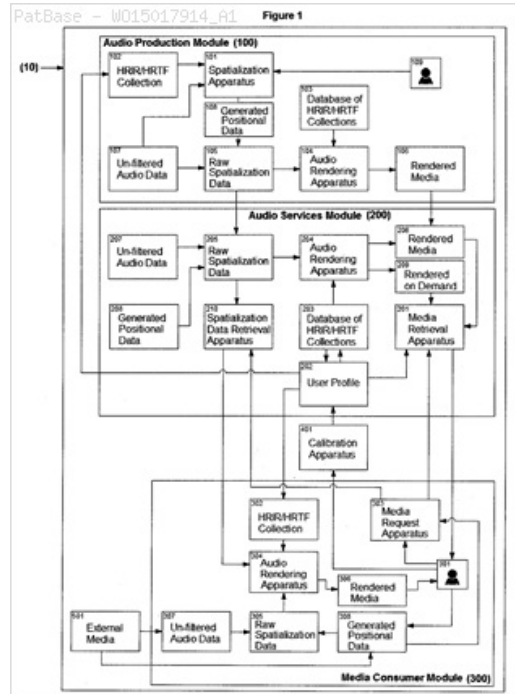
Title: MEDIA PRODUCTION AND DISTRIBUTION SYSTEM FOR CUSTOM SPATIALIZED AUDIO

Abstract: The present technology is a system for providing ubiquitous custom spatialized audio. The server-backed system comprises an audio production module comprising a producer HRIR or HRTF data source, a producer spatialization apparatus and a producer rendering apparatus for spatialization and rendering of an audio input from a media producer to provide rendered audio input, the spatialization and rendering using producer HRIR or HRTF data and a media consumer module comprising a consumer HRIR or HRTF data source, a consumer spatialization apparatus, and a consumer rendering apparatus for spatialization and rendering of the rendered audio input to provide a rendered audio output for a media consumer, the spatialization and rendering using consumer HRIR or HRTF data, and a media distributor for distributing the rendered audio output to the media consumer.

Classifications:

International (IPC 8-9): G10L19/008 H04S7/00 (Advanced/Invention)

CPC: H04S7/40 H04S2400/11 H04S2400/15 H04S2420/01 H04S7/304

**Family:**

Publication number	Publication date	Application number	Application date
WO15017914 A1	20150212	WO2014CA00603	20140801

Priority:

US20130862193P 20130805

Probable Assignee: AUDILENT TECHNOLOGIES INC

Assignee(s): (std): AUDILENT TECHNOLOGIES INC

Inventor(s): (std): CUNNINGHAM SEAN ; HOLLAND MATT ; OUELLETTE CARISSA

Agent(s): THOMPSON DOUGLAS ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: MAPPING SOUND SPATIALIZATION FIELDS TO PANORAMIC VIDEO

Abstract: Source: US2012162362A [EN] Systems and methods are disclosed for mapping a sound spatialization field to a displayed panoramic image as the viewing angle of the panoramic image changes. As the viewing angle of the image data changes, the audio data is processed to rotate the captured sound spatialization field to the same extent. Thus, the audio data remains mapped to the image data whether the image data is rotated about a single axis or about more than one axis.

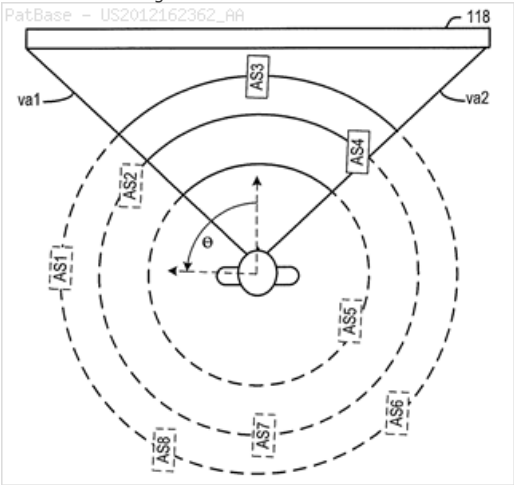
Classifications:

International (IPC 8-9): H04N13/00 H04N9/475 (Advanced/Invention)

CPC: H04N13/0468

European: H04N13/04T

US: 348/42 348/42P 348/515 348/515S 348/E13.001 348/E13.001S 348/E9.034 348/E90.34S



Family:

Publication number	Publication date	Application number	Application date
US2012162362 AA	20120628	US20100976823	20101222

Priority:

US20100976823 20101222

Probable Assignee: MICROSOFT TECHNOLOGY LICENSING LLC

Assignee(s): (std): GARDEN ALEX ; MICROSOFT CORP ; RONDINELLI MICHAEL ; VAUGHT BEN

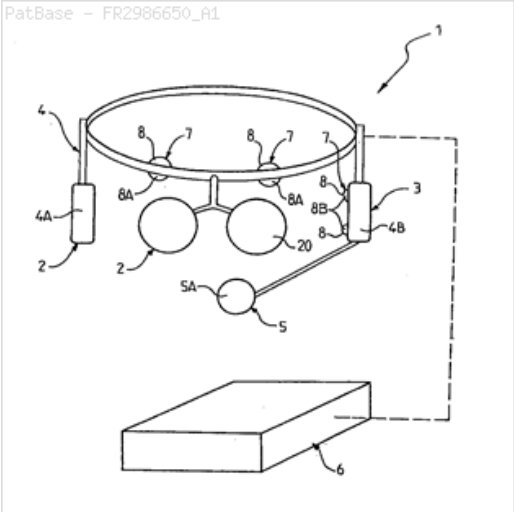
Assignee(s): MICROSOFT TECHNOLOGY LICENSING LLC

Inventor(s): (std): VAUGHT BEN ; RONDINELLI MICHAEL ; GARDEN ALEX

Title: SYSTEME POUR L'APPRENTISSAGE D'UNE LANGUE PAR UN ELEVE ET PROCEDE CORRESPONDANT

Abstract: Source: FR2986650A [FR] - Systeme pour l'apprentissage d'une langue par un eleve et procede correspondant. - L'invention concerne un systeme (1) pour l'apprentissage d'une langue par un eleve comprenant: - un dispositif (2) d'assistance a la relaxation concu pour soumettre l'eleve a des signaux lumineux et/ou sonores afin de l'amener dans un etat de relaxation legere ou profonde, - un dispositif d'emission sonore (3) concu pour faire entendre a l'eleve un texte dans une langue a apprendre, - un dispositif de controle (7) du niveau de relaxation dudit eleve qui comprend d'une part un capteur (8) destine a etre associe a l'eleve de facon a emettre un signal analogique ou numerique representatif de l'activite cerebrale de l'eleve et d'autre part un moyen d'analyse dudit signal representatif de l'activite cerebrale permettant de determiner si l'eleve se trouve bien dans ledit etat de relaxation legere ou profonde recherche. Apprentissage des langues [EN] The system (1) has a relaxation assistance device (2) designed for subjecting a student to light signals and/or sound to bring the student in a mild or deep relaxation state. A sound emitting device (3) allows the student to hear a text in a language to be learned. A control device (7) controls level of relaxation of the student and includes a sensor (8) to be associated with the student to emit an analog or digital signal representative of cerebral activity of the student and an analysis unit for the signal representative to determine if the student is proper in the state. An independent claim is also included for a method for training a language to a student.

Classifications:
International (IPC 8-9): A61B5/0476 A61M21/02 G09B19/06
G09B5/04 G09B7/02 (Advanced/Invention)
CPC: G09B19/06 G09B5/04



Family:

Publication number	Publication date	Application number	Application date
FR2986648 A1	20130809	FR20130051075	20130207
FR2986648 B1	20160715	FR20130051075	20130207
FR2986650 A1	20130809	FR20120051139	20120207
FR2986650 B1	20150918	FR20120051139	20120207

Priority:

FR20120051139 20120207 FR20130051075 20130207

Probable Assignee: DELORME DANIEL CLAUDE MARIE

Assignee(s): (std): DELORME DANIEL CLAUDE MARIE

Assignee(s): DANIEL CLAUDE MARIE DELORME

Inventor(s): (std): DELORME DANIEL CLAUDE MARIE

Inventor(s): DANIEL CLAUDE MARIE DELORME

Agent(s): CABINET DIDIER MARTIN

Title: DEVICES AND SYSTEMS FOR REAL-TIME EXPERIENCE SHARING

Abstract: Source: US2015370067A [EN] One aspect of the invention provides a device including: a headset defining a bay positioned to cover and enclose the wearer's eyes and obscure the wearer's field of view; one or more screens mounted within the bay; a pair of digital cameras mounted to the headset for capturing video images outside the bay, said pair of digital cameras positioned in a spaced relationship corresponding to a spaced relationship of human eyes; a viewed image display circuit programmed to display a first video signal captured by a first one of said pair of digital cameras and a second video signal captured by a second one of said pair of digital cameras on said one or more display screens to provide a stereographic viewing experience to a wearer; and a transmitter programmed to transmit the first and second video signals to a remote video-sharing device.

Classifications:

International (IPC 8-9): G02B27/01 (Advanced/Invention)
CPC: G02B27/0101 G02B27/017 G02B2027/013 G02B2027/0134 G02B2027/0138 G02B2027/0178
US: 345/8



Family:

Publication number	Publication date	Application number	Application date
US2015370067 AA	20151224	US20150744712	20150619

Priority:

US20140014805P 20140620 US20150744712 20150619

Probable Assignee: FILTREST LLC
Assignee(s): (std): FILTREST LLC
Inventor(s): (std): DENDULURI PRANEETH ; MUSUNURI KARTHIK

Title: METHOD FOR ENHANCEMENT OF LISTENER PERCEPTION OF SOUND SPATIALIZATION

Abstract: Presentation of sensory stimuli in a manner that enhances the listener's perception of the three dimensional location of specific sounds so that the listener may recognize, comprehend and react to the sound in a manner that improves entertainment, education, safety, work performance and impact on psychological and physiological states.

Classifications:

International (IPC 8-9): H04S3/00 (Advanced/Invention);

H04S3/00 (Core/Invention)

International (IPC 1-7): G09B H04R5/00

CPC: H04S3/002 H04S2420/01

European: H04S1/00A H04S3/00 H04S3/00A T04S420/01

Family:

Publication number	Publication date	Application number	Application date
WO04001699 A2	20031231	WO2003US20006	20030624
WO04001699 A3	20040304	WO2003US20006	20030624

Priority:

US20020390637P 20020624

Probable Assignee: WAVE DANCE AUDIO LLC

Assignee(s): (std): CORSELLO RICH ; DAKIN KARL ; WAVE DANCE AUDIO LLC

Inventor(s): (std): CORSELLO RICH ; DAKIN KARL

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT JP LU MC NL PT RO SE SI SK TR US