

Title (en)
DECODING AND ENCODING APPARATUS AND CORRESPONDING METHODS

Title (de)
DECODIERUNGS- UND CODIERUNGSVORRICHTUNG UND ZUGEHÖRIGE VERFAHREN

Title (fr)
APPAREIL DE CODAGE ET DE DÉCODAGE ET PROCÉDÉS CORRESPONDANTS

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Application
EP 16194638 A 20161019

Priority
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Abstract (en)
The invention refers to a decoding apparatus (200) for decoding encoded audio signals (992). The decoding apparatus (200) is configured to provide decoded audio signals (990) and comprises a filter provider (201) and a filter applicator (202). The filter provider (201) is configured to provide a signal filter (W (repro)) based on locations of actuators (L1, L2, L3, L4, L5) used for reproducing the decoded audio signals (990) and based on locations associated with the encoded audio signals (992). The filter applicator (202) is configured to apply the signal filter (W (repro)) to the encoded audio signals (992) in order to provide adapted audio signals (994). The decoded audio signals (990) are based on the adapted audio signals (994). The invention further refers to an encoding apparatus and to corresponding methods.

IPC 8 full level
G10L 19/008 (2013.01)

CPC (source: EP)
G10L 19/008 (2013.01); **H04S 3/008** (2013.01)

Citation (applicant)

- "Microphone Arrays: Signal Processing Techniques and Applications", 2001, SPRINGER VERLAG
- E. J. CANDLES; Y. PLAN: "Matrix completion with noise", PROCEEDINGS OF THE IEEE, vol. 98, no. 6, pages 925 - 936
- J. DANIEL.: "Représentation de champs acoustiques, application à la transmission et à la reproduction de scènes sonores complexes dans un contexte multimedia", PHD THESIS, 2000
- M. FINK: "Time reversal of ultrasonic fields - Part I: Basic principles", IEEE TRANSACTIONS ON ULTRASOUNDICS, FERROELECTRICS, AND FREQUENCY CONTROL, vol. 39, no. 5, September 1992 (1992-09-01), pages 555 - 566
- K. HELWANI; H. BUCHNER: "Adaptive Filtering in Compressive Domains", PROC. IEEE IWAENC, 2014
- K. HELWANI; H. BUCHNER; J. BENESTY; J. CHEN: "Multichannel acoustic echo suppression", PROC. IEEE INT. CONF. ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP, May 2013 (2013-05-01)
- K. HELWANI; S. SPORS; H. BUCHNER: "Journal on Multidimensional Systems and Signal Processing (MDSSP", November 2013, SPRINGER, article "The synthesis of sound figures"
- A. HYVARINEN; J. KARHUNEN; E. OJA, INDEPENDENT COMPONENT ANALYSIS
- J. O'ROURKE: "Computational Geometry in C", 1993, CAMBRIDGE UNIVERSITY PRESS
- S. SPORS; R. RABENSTEIN, THE THEORY OF WAVE FIELD SYNTHESIS REVISITED 124TH AES CONVENTION, pages 17 - 20
- R. STEWART; M. SANDLER: "STATISTICAL MEASURES OF EARLY REFLECTIONS OF ROOM IMPULSE RESPONSES", PROC. OF THE 10TH INT. CONFERENCE ON DIGITAL AUDIO EFFECTS (DAFX-07, 10 September 2007 (2007-09-10)

Citation (search report)

- [XAY] US 2013223658 A1 20130829 - BETLEHEM TERENCE [NZ], et al
- [Y] US 2014355794 A1 20141204 - MORRELL MARTIN JAMES [US], et al
- [Y] PIHLAJAMAKI TAPANI ET AL: "Synthesis of Complex Sound Scenes with Transformation of Recorded Spatial Sound in Virtual Reality", JAES, AES, 60 EAST 42ND STREET, ROOM 2520 NEW YORK 10165-2520, USA, vol. 63, no. 7/8, 18 August 2015 (2015-08-18), pages 542 - 551, XP040672137, DOI: 10.17743/JAES.2015.0059

Cited by
CN110099351A; CN111257913A

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