

Title (en)
METHOD OF PROCESSING SIGNALS ARISING FROM AN ACQUISITION BY ULTRASOUND PROBING, CORRESPONDING COMPUTER PROGRAM AND ULTRASOUND-BASED PROBING DEVICE

Title (de)
VERFAHREN ZUR VERARBEITUNG VON SIGNALEN AUS EINER ERFASSUNG MITTELS ULTRASCHALLSONDIERUNG, ENTSPRECHENDES COMPUTERPROGRAMM UND ULTRASCHALLBASIERTE SONDIERUNGSVORRICHTUNG

Title (fr)
PROCEDE DE TRAITEMENT DE SIGNAUX ISSUS D'UNE ACQUISITION PAR SONDAGE ULTRASONORE, PROGRAMME D'ORDINATEUR ET DISPOSITIF DE SONDAGE A ULTRASONS CORRESPONDANTS

Publication
EP 3555611 A1 20191023 (FR)

Application
EP 17821680 A 20171205

Priority

- FR 1662525 A 20161215
- FR 2017053391 W 20171205

Abstract (en)
[origin: WO2018109314A1] This method (700) of processing ultrasound signals comprises the control (702) of emission transducers for M successive emissions of plane ultrasound waves exhibiting M different angles of emission, the control (702) of N reception transducers to simultaneously receive N temporal measurement signals per emission, and the obtaining (704) of a matrix [MR(t)] of ultrasound temporal signals, each coefficient MR_{i,j}(t) of this matrix representing the measurement signal received by the i-th reception transducer due to the j-th emission. It furthermore comprises a decomposition into singular values (710) of a matrix [FTMR(f)] of frequency signals which is obtained (708) by transforming the matrix [MR(t)], an elimination (712) of some of the singular values and a reconstruction (714) of a denoised matrix [MRU(t)] of temporal signals on the basis of the non-eliminated singular values.

IPC 8 full level
G01N 29/04 (2006.01); **A61B 8/08** (2006.01); **G01N 29/06** (2006.01); **G01N 29/07** (2006.01); **G01N 29/26** (2006.01); **G01N 29/46** (2006.01); **G01S 15/89** (2006.01)

CPC (source: EP US)
A61B 8/14 (2013.01 - US); **A61B 8/5269** (2013.01 - US); **A61B 8/54** (2013.01 - US); **G01N 29/043** (2013.01 - EP US); **G01N 29/06** (2013.01 - EP); **G01N 29/0645** (2013.01 - EP); **G01N 29/069** (2013.01 - EP US); **G01N 29/07** (2013.01 - EP US); **G01N 29/262** (2013.01 - EP); **G01N 29/4463** (2013.01 - US); **G01N 29/46** (2013.01 - EP US); **G01N 29/48** (2013.01 - US); **G01S 7/52077** (2013.01 - EP); **G01S 15/8915** (2013.01 - EP); **G01S 15/8977** (2013.01 - EP); **G01S 15/8995** (2013.01 - EP); **G06T 7/0012** (2013.01 - US); **A61B 8/5207** (2013.01 - EP); **A61B 8/5253** (2013.01 - EP); **G01N 2291/106** (2013.01 - EP US); **G01S 15/8997** (2013.01 - EP); **G06T 2207/10132** (2013.01 - US); **G06T 2207/20056** (2013.01 - US); **G06T 2207/30004** (2013.01 - US)

Citation (search report)
See references of WO 2018109314A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2018109314 A1 20180621; CA 3046106 A1 20180621; EP 3555611 A1 20191023; FR 3060753 A1 20180622; FR 3060753 B1 20190726; JP 2020502518 A 20200123; US 11054401 B2 20210706; US 2019317054 A1 20191017

DOCDB simple family (application)
FR 2017053391 W 20171205; CA 3046106 A 20171205; EP 17821680 A 20171205; FR 1662525 A 20161215; JP 2019532089 A 20171205; US 201716469918 A 20171205