

Title (en)
Quantization of linear prediction coefficients

Title (de)
Quantisierung der linearen Prädiktion Koeffizienten

Title (fr)
Quantisation des coefficients de prédiction linéaire

Publication
EP 0899720 A3 19990915 (EN)

Application
EP 98306906 A 19980827

Priority
US 5711497 P 19970828

Abstract (en)
[origin: EP0899720A2] A new method for quantization of the LPC coefficients in a speech coder includes a new weighted error measure including every frame sampling an impulse response from LPC filter (21) of said coder, filtering the samples using a perceptual weighting filter (47) and processing in a computer (39) to calculate autocorrelation function of the weighted impulse response, computing Jacobian matrix for LSF (Line Spectral Frequency), computing correlation of rows of Jacobian matrix and calculating LSF weights by multiplying correlation matrices. <IMAGE>

IPC 1-7
G10L 9/14

IPC 8 full level
G10L 19/00 (2006.01); **G10L 19/02** (2006.01); **G10L 19/06** (2006.01); **H03M 7/30** (2006.01)

CPC (source: EP)
G10L 19/038 (2013.01); **G10L 19/07** (2013.01); **G10L 2019/0014** (2013.01)

Citation (search report)

- [E] EP 0905680 A2 19990331 - TEXAS INSTRUMENTS INC [US]
- [PX] MCCREE A ET AL: "A 1.7 kb/s MELP coder with improved analysis and quantization", PROCEEDINGS OF THE 1998 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING, ICASSP '98 (CAT. NO.98CH36181), PROCEEDINGS OF THE 1998 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING, SEATTLE, WA, USA, 12-1, 1998, New York, NY, USA, IEEE, USA, pages 593 - 596 vol.2, XP002109401, ISBN: 0-7803-4428-6
- [DA] GARDNER W R ET AL: "THEORETICAL ANALYSIS OF THE HIGH-RATE VECTOR QUANTIZATION OF PLC PARAMETERS", IEEE TRANSACTIONS ON SPEECH AND AUDIO PROCESSING, vol. 3, no. 5, 1 September 1995 (1995-09-01), pages 367 - 381, XP000641961, ISSN: 1063-6676
- [A] MCCREE A ET AL: "A 2.4 kbit/s MELP coder candidate for the new U.S. Federal Standard", 1996 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING CONFERENCE PROCEEDINGS (CAT. NO.96CH35903), 1996 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING CONFERENCE PROCEEDINGS, ATLANTA, GA, USA, 7-10 M, 1996, New York, NY, USA, IEEE, USA, pages 200 - 203 vol. 1, XP002109402, ISBN: 0-7803-3192-3
- [A] COHN R P ET AL: "Incorporating perception into LSF quantization some experiments", 1997 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (CAT. NO.97CB36052), 1997 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, MUNICH, GERMANY, 21-24 APRIL 1997, 1997, Los Alamitos, CA, USA, IEEE Comput. Soc. Press, USA, pages 1347 - 1350 vol.2, XP002109403, ISBN: 0-8186-7919-0
- [A] PALIWAL K K ET AL: "EFFICIENT VECTOR QUANTIZATION OF LPC PARAMETERS AT 24 BITS/FRAME", SPEECH PROCESSING 1, TORONTO, MAY 14 - 17, 1991, vol. 1, no. CONF. 16, 14 May 1991 (1991-05-14), INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, pages 661 - 664, XP000245315, ISBN: 0-7803-0003-3

Cited by
KR100474969B1; CN111105807A; CN100370517C; US6122608A; EP0905680A3; KR100464310B1; CN103262161A; CN105741846A; CN105825860A; CN105825861A; US7516066B2; WO2004008437A3; US9311926B2; US9773507B2; US10580425B2

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
EP 0899720 A2 19990303; EP 0899720 A3 19990915; EP 0899720 B1 20041215; DE 69828119 D1 20050120; JP H11143498 A 19990528

DOCDB simple family (application)
EP 98306906 A 19980827; DE 69828119 T 19980827; JP 24205898 A 19980827