Title (en)

MACHINE LEARNING BASED FLOW DETERMINATION FOR VIDEO CODING

Title (de)

AUF MASCHINENLERNEN BASIERENDE FLUSSBESTIMMUNG ZUR VIDEOCODIERUNG

Title (fr)

DÉTERMINATION DE FLUX SUR LA BASE D'UN APPRENTISSAGE MACHINE DESTINÉE À UN CODAGE VIDÉO

Publication

EP 4298795 A1 20240103 (EN)

Application

EP 22708699 A 20220222

Priority

- US 202163153475 P 20210225
- US 202217676510 A 20220221
- US 2022017296 W 20220222

Abstract (en)

[origin: WO2022182651A1] Systems and techniques are described herein for processing video data. In some aspects, a method can include obtaining, by a machine learning system, input video data. The input video data includes one or more luminance components for a current frame. The method can include determining, by the machine learning system, motion information for the luminance component(s) of the current frame and motion information for one or more chrominance components of the current frame using the luminance component(s) for the current frame. In some cases, the method can include determining the motion information for the luminance component(s) based on the luma component(s) of the current frame and at least one reconstructed luma component of a previous frame. In some cases, the method can further include determining the motion information for the chrominance component(s) of the current frame using the motion information determined for the luminance component(s) of the current frame.

IPC 8 full level

H04N 19/52 (2014.01); **G06N 3/04** (2023.01); **G06N 3/08** (2023.01); **H04N 19/537** (2014.01)

CPC (source: EP KR)

G06N 3/044 (2023.01 - EP); **G06N 3/045** (2023.01 - EP); **G06N 3/0464** (2023.01 - KR); **G06N 3/047** (2023.01 - EP); **G06N 3/084** (2013.01 - EP); **G06N 3/088** (2013.01 - EP); **H04N 19/132** (2014.11 - KR); **H04N 19/159** (2014.11 - KR); **H04N 19/186** (2014.11 - KR); **H04N 19/52** (2014.11 - EP KR); **H04N 19/537** (2014.11 - EP KR); **H04N 19/587** (2014.11 - KR); G06N 3/048 (2023.01 - EP); H04N 19/186 (2014.11 - EP)

Citation (search report)

See references of WO 2022182651A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2022182651 A1 20220901; BR 112023016294 A2 20231107; EP 4298795 A1 20240103; JP 2024508772 A 20240228; KR 20230150274 A 20231030

DOCDB simple family (application)

US 2022017296 W 20220222; BR 112023016294 A 20220222; EP 22708699 A 20220222; JP 2023550114 A 20220222; KR 20237027621 A 20220222