

# (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2023/0232032 A1 Deng et al.

Jul. 20, 2023

(43) **Pub. Date:** 

### (54) ALIGNMENT OF PREDICTION WEIGHTS IN VIDEO CODING

(71) Applicants: Beijing Bytedance Network

**Technology Co., Ltd.**, Beijing (CN); Bytedance Inc., Los Angeles, CA (US)

(72) Inventors: Zhipin Deng, Beijing (CN); Li Zhang, San Diego, CA (US); Hongbin Liu,

Beijing (CN); Kai Zhang, San Diego, CA (US); Jizheng Xu, San Diego, CA (US); Yue Wang, Beijing (CN)

(21) Appl. No.: 18/174,131

(22) Filed: Feb. 24, 2023

### Related U.S. Application Data

(63) Continuation of application No. 17/682,751, filed on Feb. 28, 2022, which is a continuation of application No. PCT/CN2020/112779, filed on Sep. 1, 2020.

#### (30)Foreign Application Priority Data

| Sep. 1, 2019  | (WO) | PCT/CN2019/103903 |
|---------------|------|-------------------|
| Oct. 10, 2019 | (WO) | PCT/CN2019/110490 |

#### **Publication Classification**

| (51) | Int. Cl.    |           |
|------|-------------|-----------|
|      | H04N 19/51  | (2006.01) |
|      | H04N 19/105 | (2006.01) |
|      | H04N 19/119 | (2006.01) |
|      | H04N 19/132 | (2006.01) |
|      | H04N 19/137 | (2006.01) |
|      | H04N 19/176 | (2006.01) |
|      | H04N 19/186 | (2006.01) |
|      | H04N 19/70  | (2006.01) |

(52) U.S. Cl.

CPC ...... H04N 19/51 (2014.11); H04N 19/105 (2014.11); H04N 19/119 (2014.11); H04N 19/132 (2014.11); H04N 19/137 (2014.11); H04N 19/176 (2014.11); H04N 19/186 (2014.11); H04N 19/70 (2014.11)

**ABSTRACT** (57)

A method of video processing is described. The method includes determining chroma weights used for determining a chroma prediction block of a chroma block of a current block of a video by blending predictions of the chroma block according to a rule, and performing a conversion between the current block and a coded representation of the video according to the determining. The rule specifies that the chroma weights are determined from luma weights of a collocated luma block of the current block. The current block is coded with a geometric partitioning mode.

1200

determining, for a conversion between a video unit comprising a luma block and a chroma block that is co-located with the luma block and a coded representation of the video unit, chroma weights used for the conversion of the chroma block using a triangular partitioning mode (TPM) by aligning the chroma weights with luma weights used for the conversion of the luma block

1202

performing the conversion based on a result of the determining

1204