(19) **United States**

(12) **Patent Application Publication** (10) Pub. No.: **US 2023/0232037 A1**
  Galpin et al. (43) **Pub. Date:** **Jul. 20, 2023**

(54) **UNIFIED PROCESS AND SYNTAX FOR GENERALIZED PREDICTION IN VIDEO CODING/DECODING**

(71) Applicant: **INTERDIGITAL MADISON PATENT HOLDINGS, SAS**, Paris (FR)

(72) Inventors: **Franck Galpin**, Thorigne-Fouillard (FR); **Antoine Robert**, Mézières sur Couesnon (FR); **Tangi Poirier**, Thorigné-Fouillard (FR)

(73) Assignee: **INTERDIGITAL MADISON PATENT HOLDINGS, SAS**, Paris (FR)

(21) Appl. No.: **18/100,667**

(22) Filed: **Jan. 24, 2023**

Related U.S. Application Data

(63) Continuation of application No. 17/289,076, filed on Apr. 27, 2021, filed as application No. PCT/US19/62175 on Nov. 19, 2019.

(30) **Foreign Application Priority Data**

Nov. 30, 2018   (EP) 18306592.9

Publication Classification

(51) **Int. Cl.**

H04N 19/52	(2006.01)
H04N 19/107	(2006.01)
H04N 19/132	(2006.01)
H04N 19/139	(2006.01)
H04N 19/176	(2006.01)
H04N 19/593	(2006.01)
H04N 19/70	(2006.01)

(52) **U.S. Cl.**
  CPC *H04N 19/52* (2014.11); *H04N 19/107* (2014.11); *H04N 19/132* (2014.11); *H04N 19/139* (2014.11); *H04N 19/176* (2014.11); *H04N 19/593* (2014.11); *H04N 19/70* (2014.11)

(57)   **ABSTRACT**

At least a method and an apparatus are provided for efficiently encoding or decoding video. For example, a plurality of different motion prediction modes are obtained for a current block. The current block is encoded or decoded based on a combination of the plurality of different motion prediction modes with corresponding weights, wherein the combination with the corresponding weights comprising at least two inter prediction modes, or an inter prediction mode and an intra prediction mode. Both triangle prediction and multi-hypothesis prediction are allowed to be indicated in one or more lists of possible motion vector candidates, such as, e.g., in advanced motion vector prediction (AMVP) mode.

<u>**100**</u>