US 20230232440A1

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2023/0232440 A1
Xu et al. (43) Pub. Date: Jul. 20, 2023

(54) **PREDICTION-BASED CONTROL INFORMATION FOR WIRELESS COMMUNICATIONS**

(71) Applicant: **QUALCOMM Incorporated**, San Diego, CA (US)

(72) Inventors: **Huilin Xu**, Temecula, CA (US); **Lianghai Ji**, San Diego, CA (US); **Liangping Ma**, San Diego, CA (US); **Qiang Wu**, San Diego, CA (US); **Mehmet Izzet Gurelli**, San Diego, CA (US); **Jun Ma**, San Diego, CA (US); **Weimin Duan**, San Diego, CA (US); **Karthik Anantha Swamy**, La Jolla, CA (US)

(21) Appl. No.: **17/578,328**

(22) Filed: **Jan. 18, 2022**

Publication Classification

(51) **Int. Cl.**
H04W 72/08 (2006.01)
H04B 17/391 (2006.01)
H04W 72/04 (2006.01)

(52) **U.S. Cl.**
CPC ***H04W 72/085*** (2013.01); ***H04B 17/3913*** (2015.01); ***H04W 72/042*** (2013.01)

(57) **ABSTRACT**

Methods, systems, and devices for wireless communications are described. Some wireless devices may support a prediction capability for prediction-based control information. A first device may receive, from a second device, first control signaling that activates the predication capability of the first device to generate a set of one or more control parameters for communications. The second device may transmit second control signaling to the first device to indicate initial values of the control parameters and a channel condition model for the first device. The first device and the second device may generate a set of multiple values associated with the control parameters over a time period based on the initial values of the control parameters and the channel condition model. The first device and the second device may communicate during at least the time period according to the set of generated values associated with the control parameters.