US 20240214526A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2024/0214526 A1**

Valli (43) **Pub. Date: Jun. 27, 2024**

(54) **SYSTEM AND METHOD FOR AUGMENTED REALITY MULTI-VIEW TELEPRESENCE**

(71) Applicant: **InterDigital VC Holdings, Inc.**, Wilmington, DE (US)

(72) Inventor: **Seppo T. Valli**, Espoo (FI)

(21) Appl. No.: **18/601,947**

(22) Filed: **Mar. 11, 2024**

Related U.S. Application Data

(63) Continuation of application No. 17/830,913, filed on Jun. 2, 2022, now Pat. No. 11,962,940, which is a continuation of application No. 16/894,603, filed on Jun. 5, 2020, now Pat. No. 11,363,240, which is a continuation of application No. 15/752,239, filed on Feb. 12, 2018, now Pat. No. 10,701,318, filed as application No. PCT/US2016/046848 on Aug. 12, 2016.

(60) Provisional application No. 62/205,487, filed on Aug. 14, 2015.

Publication Classification

(51) **Int. Cl.**

H04N 7/15	(2006.01)
G02B 27/01	(2006.01)
G06T 19/00	(2006.01)
H04N 13/243	(2006.01)
H04R 27/00	(2006.01)
H04S 7/00	(2006.01)

(52) **U.S. Cl.**

CPC ***H04N 7/157*** (2013.01); ***G02B 27/017*** (2013.01); ***G06T 19/006*** (2013.01); ***H04N 13/243*** (2018.05); ***H04S 7/303*** (2013.01); *H04R 27/00* (2013.01); *H04S 2400/11* (2013.01); *H04S 2400/15* (2013.01)

(57) **ABSTRACT**

Disclosed herein are systems and methods for augmented reality multi-view telepresence. An embodiment takes the form of a method that includes obtaining a session geometry of a multi-location telepresence session that includes a first-location participant at a first location and a second-location participant at a second location, each location having respective pluralities of cameras and display segments. The method includes selecting, according to the session geometry, both a first-to-second-viewpoint second-location camera from the plurality of second-location cameras as well as a first-to-second-viewpoint first-location display segment from the plurality of first-location display segments. The method includes receiving a first-to-second-viewpoint video stream captured by the selected first-to-second-viewpoint second-location camera, and further includes generating a line-of-sight augmented-reality experience for the multi-location telepresence session at least in part by rendering the received first-to-second-viewpoint video stream via the selected first-to-second-viewpoint first-location display segment.