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(54) **TRACE/TRAJECTORY RECONSTRUCTION VIA WEARABLE AND/OR MOBILE SENSORS FOR INDOOR/OUTDOOR LOCATION**

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CPC **H04W 4/043** (2013.01); **H04W 4/70** (2018.02)

(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

At a mobile electronic device, first sensor data is obtained from at least one wearable muscle sensor, suggesting that location tracking will imminently be desirable. A first indication that an external locator signal is not usable is also obtained. Responsive to the first sensor data and the indication, second sensor data, from at least one wearable muscle sensor, indicative of motion of a subject wearing the at least one muscle sensor, is recorded. A second indication that the external locator signal is now usable is obtained. Responsive to the second indication, the external locator signal is used to determine a current location of the mobile electronic device; and the second sensor data is used to backtrack from the current location of the mobile electronic device to indicate a location of the mobile electronic device at a time when the recording of the second sensor data was initiated.

14 Claims, 6 Drawing Sheets

