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(54) **APPARATUS AND METHOD FOR WIRELESS COMMUNICATION**

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(57) **ABSTRACT**

An apparatus for wireless communication includes: a receiving unit, for receiving a first orthogonal time-frequency space symbol including multiple delay Doppler regions corresponding to multiple transmitting terminals; a processing unit, for executing the following steps: A1: dividing the multiple delay Doppler regions into multiple first-type sets according to different displacement intervals occupied in a first dimension, and performing iterative serial de-interference decoding on the multiple time-delay Doppler regions in a same first-class set; A2: dividing the multiple delay Doppler regions into multiple second-type sets according to different displacement intervals occupied in a second dimension, and performing iterative serial de-interference decoding on the multiple time-delay Doppler regions in a same second-class set. The first dimension is one of a delay dimension and a Doppler dimension, and the second dimension is the other dimension of the two dimensions.

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