ABSTRACT

A communication method and apparatus are provided to improve communication performance. The method includes: A first communication apparatus determines a first signal, and sends the first signal. The first signal is determined based on a first sequence, and the first sequence is determined based on a base sequence and an auxiliary sequence. The base sequence is an ideal auto-correlation function sequence, the auxiliary sequence is a cyclic shift sequence, and an ambiguity function of the first sequence is equal to zero within a maximum delay spread and a maximum Doppler spread; or the base sequence is an optimal auto-ambiguity function sequence, the auxiliary sequence is a quadratic polynomial exponential sequence, and an ambiguity function of the first sequence is less than or equal to an ambiguity function threshold within a maximum delay spread and a maximum Doppler spread. The first sequence is constructed based on the base sequence and the auxiliary sequence, so that the first sequence may be used for a plurality of physical channels and physical signals, and the first signal is transmitted based on the first sequence, thereby improving communication performance.

FIG.2