CLAIMS

1. An indication method, performed by a terminal, comprising:

obtaining codebook parameter information indicated by a network device, wherein the codebook parameter information comprises a numeric count of codebook parameters configured for a transmission reception point (TRP); and

sending indication information to the network device, wherein the indication information indicates an index of a codebook parameter selected by the terminal for the TRP, and the index is related to the numeric count of codebook parameters.

2. The method according to claim 1, wherein the codebook parameter comprises at least one of:

a frequency domain (FD) basis vector;

a spatial domain (SD) basis vector;

an SD and FD basis vector pair; or

a channel state information-reference signal (CSI-RS) port.

3. The method according to any one of claims 1 to 2, wherein the indication information comprises at least one of:

FD basis vector indication information;

SD basis vector indication information;

SD and FD basis vector pair indication information;

CSI-RS port indication information; or

indication information for a starting position of a window corresponding to each TRP of multiple TRPs, wherein a candidate FD basis vector is within one or more windows.

4. The method according to claim 3, wherein the FD basis vector indication information indicates at least one of:

an index of an FD basis vector corresponding to a reference TRP;

an index of an FD basis vector corresponding to each TRP of remaining TRPs;

an index of an FD basis vector corresponding to each TRP in the multiple TRPs;

an index of a relative FD basis vector corresponding to each TRP in the multiple TRPs,

wherein the index of the relative FD basis vector corresponding to each TRP is obtained by calculating a difference between the index of the FD basis vector corresponding to each TRP and the index of the reference FD basis vector; or

an index of a reference FD basis vector;

wherein the reference TRP and the remaining TRP belong to the multiple TRPs, and the multiple TRPs provide a data service to the terminal.

5. The method according to claim 4, wherein the codebook parameter information further comprises a reference numeric count; the numeric count of codebook parameters comprises a numeric count of FD basis vectors configured for each TRP; and

wherein sending the indication information to the network device comprises:

sending the FD basis vector indication information to the network device according to the reference numeric count and the numeric count of FD basis vectors, wherein the FD basis vector indication information indicates at least one of:

the index of the FD basis vector corresponding to the reference TRP; or

the index of the FD basis vector corresponding to each TRP of remaining TRPs.

6. The method according to claim 4, wherein the codebook parameter information further comprises a reference numeric count; the numeric count of codebook parameters comprises a numeric count of FD basis vectors configured for the reference TRP; and

the method further comprises:

obtaining a first indication value by processing the reference numeric count and the numeric count of FD basis vectors configured for the reference TRP according to a first indication method, wherein the first indication value indicates the index of the FD basis vector corresponding to the reference TRP,

wherein the first indication method comprises:

$$\left\lceil \log_2 C_{N_3-1}^{M_i-1} \right\rceil;$$

where $C_{N_3-1}^{M_i-1}$ represents selecting (M_i-1) FD basis vectors from (N_3-1) FD basis vectors, $\lceil\ \rceil$ represents rounding up to an integer, N_3 represents the reference numeric count, M_i represents the numeric count of FD basis vectors configured for the reference TRP, i represents an index of the reference TRP in the multiple TRPs.

7. The method according to claim 4, wherein the codebook parameter information further comprises a reference numeric count; the numeric count of codebook parameters comprises a numeric count of FD basis vectors configured for each TRP of remaining TRPs; and

the method further comprises:

obtaining a second indication value by processing the reference numeric count and the numeric count of FD basis vectors configured for each TRP of remaining TRPs according to a second indication method, wherein the second indication value indicates the index of the FD basis vector corresponding to each TRP of remaining TRPs,

wherein the second indication method comprises:

$$\left\lceil \log_2 C_{N_3}^{M_i} \right\rceil;$$

where $C_{N_3}^{M_i}$ represents selecting M_i FD basis vectors from N_3 FD basis vectors, ⌈ ⌉ represents rounding up to an integer, N_3 represents the reference numeric count, M_i represents the numeric count of FD basis vectors configured for each TRP of remaining TRPs, i represents an index of a remaining TRP in the multiple TRPs.

8. The method according to claim 4, wherein the codebook parameter information further comprises a reference numeric count; the numeric count of codebook parameters comprises a total numeric count of FD basis vectors configured for all of the multiple TRPs; and

wherein sending the indication information to the network device comprises:

sending the FD basis vector indication information according to the reference numeric count and/or the total numeric count of FD basis vectors, wherein the FD basis vector indication information indicates at least one of:

the index of the FD basis vector corresponding to each TRP in the multiple TRPs;

the index of the relative FD basis vector corresponding to each TRP in the multiple TRPs; or

the index of the reference FD basis vector.

9. The method according to claim 4, wherein the codebook parameter information further comprises a reference numeric count; the numeric count of codebook parameters comprises a total numeric count of FD basis vectors configured for all of the multiple TRPs; and

the method further comprises:

obtaining a third indication value by processing the reference numeric count and the total numeric count of FD basis vectors according to a third indication method, wherein the third indication value indicates the index of the FD basis vector corresponding to each TRP,

wherein the third indication method comprises:

$$\left\lceil \log_2^{C_{N_3-1}^{M-1}} \right\rceil;$$

where $C_{N_3-1}^{M-1}$ represents selecting (M-1) FD basis vectors from (N_3-1) FD basis vectors, ⌈ ⌉ represents rounding up to an integer, N_3 represents the reference numeric count, M represents the total numeric count of FD basis vectors configured for all of the multiple TRPs.

10. The method according to claim 4, wherein the codebook parameter information further comprises a reference numeric count; and

the method further comprises:

obtaining a fourth indication value by processing the reference numeric count according to a fourth indication method, wherein the fourth indication value indicates the index of the reference FD basis vector,

wherein the fourth indication method comprises:

$$\left\lceil \log_2^{C_{N_3}^{1}} \right\rceil;$$

where $C_{N_3}^{1}$ represents selecting one FD basis vector from N_3 FD basis vectors, ⌈ ⌉ represents rounding up to an integer, and N_3 represents the reference numeric count.

11. The method according to any one of claims 5 to 10, wherein the reference numeric count is one of:

a numeric count of precoding matrix indicators (PMIs); or

a numeric count of FD basis vectors contained in a sliding window.

12. The method according to claim 4, wherein the reference TRP is one of:

a TRP corresponding to a first layer 1 reference signal receiving power (L1-RSRP) with a maximum value among a plurality of first L1-RSRPs, and each first L1-RSRP corresponding to one respective TRP;

a TRP corresponding to a first combination coefficient with a maximum amplitude among a plurality of first combination coefficients;

a TRP corresponding to a maximum first reference amplitude among a plurality of first

reference amplitudes; or

a TRP corresponding to a minimum or maximum first description value among a plurality of first description values, and each first description value corresponding to one respective TRP.

13. The method according to claim 12, wherein the first description value is one of:

an index of an FD basis vector corresponding to the TRP;

a resource identifier (ID) in a CSI-RS resource corresponding to the TRP; or

a port group index corresponding to the TRP.

14. The method according to claim 3, wherein the SD basis vector or SD and FD basis vector pair indication information indicates at least one of:

an index of an SD basis vector corresponding to each TRP;

an index of an FD basis vector corresponding to each TRP; or

an index of an SD and FD basis vector pair corresponding to each TRP.

15. The method according to claim 14, wherein a basis vector is a discrete Fourier transform (DFT) basis vector, and sending the indication information to the network device comprises:

sending DFT basis vector indication information according to the numeric count of codebook parameters, wherein the DFT basis vector indication information indicates one of:

the index of the SD basis vector corresponding to each TRP; or

the index of the FD basis vector corresponding to each TRP.

16. The method according to claim 3, wherein a plurality of data transmission layers exist; wherein the indication information satisfies at least one of:

being the same as CSI-RS port indication information corresponding to each data transmission layer;

being the same as SD basis vector indication information corresponding to each data transmission layer;

being different from FD basis vector indication information corresponding to each data transmission layer;

being the same as or different from SD and FD basis vector pair indication information corresponding to each data transmission layer, wherein a basis vector is a DFT basis vector; or

being the same as SD and FD basis vector pair indication information corresponding to each data transmission layer, wherein a basis vector is an eigenvector.

17. An indication method, performed by a network device, comprising:

indicating codebook parameter information to a terminal, wherein the codebook parameter information comprises a numeric count of codebook parameters configured for a transmission reception point (TRP); and

receiving indication information sent by the terminal, wherein the indication information indicates an index of a codebook parameter selected by the terminal for the TRP, and the index is related to the numeric count of codebook parameters.

18. The method according to claim 17, wherein the codebook parameter information further comprises a reference numeric count, and the numeric count of codebook parameters is one of:

a numeric count of FD basis vectors configured for each TRP;

a total numeric count of FD basis vectors configured for all of the multiple TRPs;

a numeric count of SD and FD basis vector pairs configured for each TRP; or

a total numeric count of SD and FD basis vector pairs configured for all of the multiple TRPs.

19. A terminal configured to perform the method according to any one of claims 1 to 16.

20. A network device configured to perform the method according to claim 17 or 18.