CLAIMS

What is claimed is:

1. A beam indication method, comprising:

receiving beam indication information transmitted by a network-side device, wherein the beam indication information is used to indicate a plurality of pieces of beam information of a Sounding Reference Signal SRS, and the plurality of pieces of beam information correspond to different transmission and reception point TRP identification information; and

transmitting the SRS according to the beam indication information;

wherein the beam indication information comprises:

a plurality of pieces of spatial relation information, wherein the plurality of pieces of spatial relation information correspond to different TRP identification information.

2. The method according to claim 1, wherein when the spatial relation information is spatial relation information of the SRS on a fifth bandwidth part of a fifth component carrier and activated by a media access control control element, the spatial relation information is applied to all SRSs corresponding to same TRP identification information as the SRS, among all component carriers in a component carrier list in which the fifth component carrier is located; or the spatial relation information is applied to an SRS having a same SRS resource index and corresponding to same TRP identification information as the SRS, among all component carriers in a component carrier list in which the fifth component carrier is located.

3. The method according to claim 1, further comprising:

if the beam indication information does not comprise spatial relation information of the SRS, determining the spatial relation information of the SRS based on default TCI state information or quasi-co-location information corresponding to preset TRP identification information.

4. The method according to claim 3, wherein the preset TRP identification information comprises:

TRP identification information associated with an SRS resource.

5. The method according to claim 3, wherein the default TCI state information or the quasi-co-location information comprises:

TCI state information or quasi-co-location information of a control resource set having a smallest control resource set identifier and corresponding to the preset TRP identification information; or

TCI state information having a smallest TCI state identifier in a group of activated TCI state information corresponding to the preset TRP identification information; or

TCI state information corresponding to a lowest codepoint in a TCI field of DCI; or

TCI state information corresponding to a lowest codepoint among codepoints containing one piece of TCI state information in a TCI field of DCI; or

TCI state information corresponding to a lowest codepoint among codepoints containing a plurality of pieces of TCI state information in a TCI field of DCI.

6. A terminal device, comprising a memory, a processor, and a computer program stored in the memory and capable of running on the processor, wherein

when the processor executes the computer program, the beam indication method according to any one of claims 1 to 5 is implemented.

7. A network-side device, comprising a memory, a processor, and a computer program stored in the memory and capable of running on the processor, wherein

when the processor executes the computer program, the following steps are implemented:

transmitting beam indication information to a terminal device, so that the terminal device transmits a Sounding Reference Signal SRS according to the beam indication information, wherein the beam indication information is used to indicate a plurality of pieces of beam information of the SRS, and the plurality of pieces of beam information correspond to different TRP identification information;

wherein the beam indication information comprises:

a plurality of pieces of spatial relation information, wherein the plurality of pieces of spatial relation information correspond to different TRP identification information.

8. The network-side device according to claim 7, wherein when the spatial relation information is spatial relation information of the SRS on a fifth bandwidth part of a fifth component carrier and activated by a media access control control element, the spatial relation information is applied to all SRSs corresponding to same TRP identification information as the SRS, among all component carriers in a component carrier list in which the fifth component carrier is located; or the spatial relation information is applied to an SRS having a same SRS resource index and corresponding to same TRP identification information as the SRS, among all component carriers in a component carrier list in which the fifth component carrier is located.

9. The network-side device according to claim 7, further comprising:

if the beam indication information does not comprise spatial relation information of the SRS, determining the spatial relation information of the SRS based on default TCI state information or quasi-co-location information corresponding to preset TRP identification information.

10. The network-side device according to claim 9, wherein the preset TRP identification information comprises:

TRP identification information associated with an SRS resource.

11. The network-side device according to claim 9, wherein the default TCI state information or the quasi-co-location information comprises:

TCI state information or quasi-co-location information of a control resource set having a smallest control resource set identifier and corresponding to the preset TRP identification information; or

TCI state information having a smallest TCI state identifier in a group of activated TCI state information corresponding to the preset TRP identification information; or

TCI state information corresponding to a lowest codepoint in a TCI field of DCI; or

TCI state information corresponding to a lowest codepoint among codepoints containing one piece of TCI state information in a TCI field of DCI; or

TCI state information corresponding to a lowest codepoint among codepoints containing a plurality of pieces of TCI state information in a TCI field of DCI.