CLAIMS

What is claimed is:

1. A channel state information CSI reporting method, comprising:

determining (S401) a CSI state,

wherein the determining a CSI state comprises determining the CSI state when a CSI reading occasion arrives,

wherein the reading occasion is associated with a CSI reporting occasion and arrives before the CSI reporting occasion, and the sending preset CSI is sending the preset CSI when the CSI reporting occasion arrives,

wherein performing a CSI configuration process requires a configuration delay before being completed; and

sending (S402) preset CSI when the CSI state is invalid, wherein the CSI state is determined as invalid if the measurement occasion is within the configuration delay.

2. The method according to claim 1, wherein the CSI state is set to invalid for a received preset message.

3. The method according to claim 2, wherein the preset message is one of the following messages:

a CSI report configuration message;

a CSI reconfiguration message;

a serving cell activation message;

a bandwidth part switching message; and

a semi-persistent CSI reporting activation message.

4. The method according to any one of claims 1 to 3, wherein the CSI state is set to valid when the CSI is obtained through calculation.

5. The method according to any one of claims 1 to 4, wherein the preset CSI is default CSI.

6. A channel state information CSI reporting method, comprising:

receiving (S501) a preset message;

determining a CSI state when a CSI reading occasion arrives,

wherein the CSI reading occasion is associated with a CSI reporting occasion and occurs before the CSI reporting occasion,

wherein performing a CSI configuration process requires a configuration delay before being completed, and the CSI state is determined as invalid when the CSI reading occasion is within the configuration delay; and

when valid CSI cannot be obtained due to the preset message before the CSI reporting occasion arrives, sending (S502) preset CSI when the CSI reporting occasion arrives.

7. The method according to claim 6, wherein the preset message is one of the following messages:

a CSI report configuration message;

a CSI reconfiguration message;

a serving cell activation message;

a bandwidth part switching message; and

a semi-persistent CSI reporting activation message.

8. The method according to claim 6 or 7, wherein the preset CSI is default CSI.

9. A channel state information CSI receiving method, comprising:

sending (S501) a preset message;

determining a CSI state when a CSI reading occasion arrives,

wherein the CSI reading occasion is associated with a CSI reporting occasion and occurs before the CSI reporting occasion,

wherein performing a CSI configuration process requires a configuration delay before being completed, and the CSI state is determined as invalid when the CSI reading occasion is within the configuration delay; and

receiving (S503) preset CSI in the CSI reporting occasion.

10. The method according to claim 9, wherein the preset message is one of the following messages:

a CSI report configuration message;

a CSI reconfiguration message;

a serving cell activation message;

a bandwidth part switching message; and

a semi-persistent CSI reporting activation message.

11. The method according to claim 9 or 10, wherein the preset CSI is default CSI.

12. A communication apparatus (600), comprising:

a processing unit (601), configured to determine a channel state information (CSI) state,

wherein the processing unit (601) is configured to determine the CSI state when a CSI reading occasion

arrives,

wherein the CSI reading occasion is associated with a CSI reporting occasion and arrives before the CSI reporting occasion, and the processing unit is configured to send the preset CSI when the CSI reporting occasion arrives,

wherein performing a CSI configuration process requires a configuration delay before being completed; and

a sending unit (602), configured to send preset CSI when the CSI state is invalid,

wherein the CSI state is determined as invalid if the measurement occasion is within the configuration delay.

13. The apparatus (600) according to claim 12, wherein the apparatus further comprises a receiving unit (603), configured to receive a preset message; and

the processing unit (601) is further configured to set the CSI state to invalid for the received preset message.

14. The apparatus (600) according to claim 13, wherein the preset message is one of the following messages:

a CSI report configuration message;

a CSI reconfiguration message;

a serving cell activation message;

a bandwidth part switching message; and

a semi-persistent CSI reporting activation message.

15. The apparatus (600) according to any one of claims 12 to 14, wherein the processing unit (601) is further configured to set the CSI state to valid when the CSI is obtained through calculation.

16. The apparatus (600) according to any one of claims 12 to 15, wherein the preset CSI is default CSI.

17. A communication apparatus (700), comprising:

a receiving unit (701), configured to receive a preset message; and

a sending unit (702), configured to: when valid CSI cannot be obtained due to the preset message before a CSI reporting occasion arrives, send preset CSI when the CSI reporting occasion arrives,

wherein determining whether valid CSI can be obtained comprises determining a CSI state when a CSI reading occasion arrives, the CSI reading occasion being associated with the CSI reporting occasion and occurring before the CSI reporting occasion,

wherein performing a CSI configuration process requires a configuration delay before being completed, and the CSI state is determined as invalid when the CSI reading occasion is within the configuration delay.

18. The apparatus (700) according to claim 17, wherein the preset message is one of the following messages:

a CSI report configuration message;

a CSI reconfiguration message;

a serving cell activation message;

a bandwidth part switching message; and

a semi-persistent CSI reporting activation message.

19. The apparatus (700) according to claim 17 or 18, wherein the preset CSI is default CSI.

20. A communication apparatus (800), comprising:

a sending unit (801), configured to send a preset message; and

a receiving unit (802), configured to receive preset CSI in a CSI reporting occasion,

wherein receiving the preset CSI occurs when a terminal device determines a CSI state as invalid, the terminal device determining the CSI state when a CSI reading occasion arrives, the CSI reading occasion being associated with the CSI reporting occasion and occurring before the CSI reporting occasion,

wherein performing, by the terminal device, a CSI configuration process requires a configuration delay before being completed, and the CSI state is determined as invalid when the CSI reading occasion is within the configuration delay..

21. The apparatus (800) according to claim 20, wherein the preset message is one of the following messages:

a CSI report configuration message;

a CSI reconfiguration message;

a serving cell activation message;

a bandwidth part switching message; and

a semi-persistent CSI reporting activation message.

22. The apparatus (800) according to claim 20 or 21, wherein the preset CSI is default CSI.

23. A communication apparatus, comprising:

at least one processor, and a memory and a communication interface that are communicatively connected to the at least one processor, wherein

the memory stores instructions that can be executed by the at least one processor, and the at least one processor executes the instructions stored in the memory, so that the apparatus performs, by using the communication interface, the method according to any one of claims 1 to 7 or any one of claims 6 to 8.

24. A communication apparatus, comprising:

at least one processor, and a memory and a communication interface that are communicatively connected to the at least one processor, wherein

the memory stores instructions that can be executed by the at least one processor, and the at least one processor executes the instructions stored in the memory, so that the apparatus performs, by using the communication interface, the method according to any one of claims 9 to 11.

25. A computer-readable storage medium, comprising programs or instructions, wherein when the programs or the instructions are run on a computer, the method according to any one of claims 1 to 5 or any one of claims 6 to 8 is performed.

26. A computer-readable storage medium, comprising programs or instructions, wherein when the programs or the instructions are run on a computer, the method according to any one of claims 9 to 11 is performed.