

CLAIMS

1. A method for adjusting a channel quality indicator feedback cycle, comprising:

receiving (101) a channel quality indicator, CQI, adjustment parameter fed back by a base station, and determining (102), according to the CQI adjustment parameter, whether a CQI feedback cycle of a user equipment needs to be adjusted; and

when it is determined that the CQI feedback cycle needs to be adjusted, adjusting (103) the CQI feedback cycle of the user equipment, and sending an adjusted CQI feedback cycle to the user equipment;

wherein the CQI adjustment parameter is a cell uplink load value measured by the base station; and the determining, according to the CQI adjustment parameter, whether the CQI feedback cycle of the user equipment needs to be adjusted is: determining (202) whether the cell uplink load value measured by the base station is greater than a first load threshold value, or is smaller than a second load threshold value; and the adjusting the CQI feedback cycle of the user equipment is increasing (203) the CQI feedback cycle of the user equipment when the cell uplink load value measured by the base station is greater than the first load threshold value; or the adjusting the CQI feedback cycle of the user equipment is decreasing (204) the CQI feedback cycle of the user equipment when the cell uplink load value measured by the base station is smaller than the second load threshold value; wherein the first load threshold value is greater than the second load threshold value;

or

the CQI adjustment parameter is a value of transmit power used by the user equipment reported by the base station; and the determining, according to the CQI adjustment parameter, whether the CQI feedback cycle of the user equipment needs to be adjusted is: determining (402) whether the value of transmit power used by the user equipment reported by the base station is greater than a first power threshold value, or is smaller than a second power threshold value; and the adjusting the CQI feedback cycle of the user equipment is increasing (403) the CQI feedback cycle of the user equipment when the value of transmit power used by the user equipment is greater than the first power threshold value; or the adjusting the CQI

feedback cycle of the user equipment is decreasing (404) the CQI feedback cycle of the user equipment when the value of transmit power used by the user equipment is smaller than the second power threshold value; wherein the first power threshold value is greater than the second power threshold value;

5 or,

the CQI adjustment parameter is a user event type reported by the base station; and the determining, according to the CQI adjustment parameter, whether the CQI feedback cycle of the user equipment needs to be adjusted is: determining (502) whether the user event type reported by the base station is a 6B event or a 6A event, and the adjusting the CQI feedback cycle of the user equipment is increasing (503) the CQI feedback cycle of the user equipment when the user event type is the 6B event; or the adjusting the CQI feedback cycle of the user equipment is decreasing (504) the CQI feedback cycle of the user equipment when the user event type is the 6A event.

15 ~~2. The method for adjusting the channel quality indicator CQI feedback cycle according to claim 1, wherein~~

~~the CQI adjustment parameter is a cell load value measured by the base station; and~~

~~the determining, according to the CQI adjustment parameter, whether the CQI feedback cycle of the user equipment needs to be adjusted is:~~

20 ~~determining (202) whether the cell load value measured by the base station is greater than a first load threshold value, or is smaller than a second load threshold value; and~~

~~the adjusting the CQI feedback cycle of the user equipment is increasing (203) the CQI feedback cycle of the user equipment when the cell load value measured by the base station is greater than the first load threshold value; or~~

25 ~~the adjusting the CQI feedback cycle of the user equipment is decreasing (204) the CQI feedback cycle of the user equipment when the cell load value measured by the base station is smaller than the second load threshold value; wherein~~

~~the first load threshold value is greater than the second load threshold value.~~

30 ~~3. The method for adjusting the channel quality indicator CQI feedback cycle according to claim 1, wherein~~

the CQI adjustment parameter is a cell user number measured by the base station; and
the determining, according to the CQI adjustment parameter, whether the CQI feedback
cycle of the user equipment needs to be adjusted is:

determining (302) whether the cell user number measured by the base station is greater
than a first user number threshold value, or is smaller than a second user number threshold
value; and—

the adjusting the CQI feedback cycle of the user equipment is increasing (303) the CQI
feedback cycle of the user equipment when the cell user number measured by the base station
is greater than the first user number threshold value; or

the adjusting the CQI feedback cycle of the user equipment is decreasing (304) the CQI
feedback cycle of the user equipment when the cell user number measured by the base station
is smaller than the second user number threshold value; wherein

the first user number threshold value is greater than the second user number threshold
value.

4. The method for adjusting the channel quality indicator CQI feedback cycle according
to claim 1, wherein

the CQI adjustment parameter is a value of power used by the user equipment reported
by the base station; and

the determining, according to the CQI adjustment parameter, whether the CQI feedback
cycle of the user equipment needs to be adjusted is:

determining (402) whether the value of power used by the user equipment reported by
the base station is greater than a first power threshold value, or is smaller than a second
power threshold value; and—

the adjusting the CQI feedback cycle of the user equipment is increasing (403) the CQI
feedback cycle of the user equipment when the value of power used by the user equipment is
greater than the first power threshold value; or

the adjusting the CQI feedback cycle of the user equipment is decreasing (404) the CQI
feedback cycle of the user equipment when the value of power used by the user equipment is
smaller than the second power threshold value; wherein

the first power threshold value is greater than the second power threshold value.

5. The method for adjusting the channel quality indicator CQI feedback cycle according to claim 1, wherein

the CQI adjustment parameter is a user event type reported by the base station; and

the determining, according to the CQI adjustment parameter, whether the CQI feedback cycle of the user equipment needs to be adjusted is:

determining (502) whether the user event type reported by the base station is a 6B event or a 6A event, and

the adjusting the CQI feedback cycle of the user equipment is increasing (503) the CQI feedback cycle of the user equipment when the user event type is the 6B event; or

the adjusting the CQI feedback cycle of the user equipment is decreasing (504) the CQI feedback cycle of the user equipment when the user event type is the 6A event.

62. The method for adjusting the CQI feedback cycle according to any one of claims 1 to 5, wherein

the sending an adjusted CQI feedback cycle to the user equipment is: sending an RB reconfiguration instruction to the user equipment, wherein the reconfiguration instruction carries an adjusted CQI feedback cycle, to enable the user equipment to perform CQI feedback according to the adjusted CQI feedback cycle.

73. An apparatus for adjusting a channel quality indicator feedback cycle, comprising:

a receiving module (601), configured to receive a channel quality indicator, CQI, adjustment parameter fed back by a base station;

a judging module (602), configured to determine, according to the CQI adjustment parameter received by the receiving module, whether a CQI feedback cycle of a user equipment needs to be adjusted; and

a processing module (603), configured to, when the judging module determines that the CQI feedback cycle needs to be adjusted, adjust the CQI feedback cycle of the user equipment, and send an adjusted CQI feedback cycle to the user equipment;

wherein the CQI adjustment parameter is a cell uplink load value measured by the base station, and the judging module comprises:

a first judging sub-module (701), configured to determine whether the cell uplink load value measured by the base station is greater than a first load threshold value, and when the

cell uplink load value measured by the base station is greater than the first load threshold value, the adjusting the CQI feedback cycle of the user equipment is increasing the CQI feedback cycle of the user equipment; and

determine whether the cell uplink load value measured by the base station is smaller than a second load threshold value, and when the cell uplink load value measured by the base station is smaller than the second load threshold value, the adjusting the CQI feedback cycle of the user equipment is decreasing the CQI feedback cycle of the user equipment;

or,

the CQI adjustment parameter is a value of transmit power used by the user equipment reported by the base station, and the judging module comprises: a third judging sub-module (703), configured to determine whether the value of transmit power used by the user equipment reported by the base station is greater than a first power threshold value, and when the value of transmit power used by the user equipment is greater than the first power threshold value, the adjusting the CQI feedback cycle of the user equipment is increasing the CQI feedback cycle of the user equipment; and determine whether the value of transmit power used by the user equipment reported by the base station is smaller than a second power threshold value, and when the value of transmit power used by the user equipment is smaller than the second power threshold value, the adjusting the CQI feedback cycle of the user equipment is decreasing the CQI feedback cycle of the user equipment;

or,

the CQI adjustment parameter is a user event type reported by the base station, and the judging module comprises: a fourth judging sub-module (704), configured to determine whether the user event type reported by the base station is a 6B event, and when the user event type is the 6B event, the adjusting the CQI feedback cycle of the user equipment is increasing the CQI feedback cycle of the user equipment; and determine whether the user event type reported by the base station is a 6A event, and when the user event type is the 6A event, the adjusting the CQI feedback cycle of the user equipment is decreasing the CQI feedback cycle of the user equipment.

~~8. The apparatus for adjusting the channel quality indicator CQI feedback cycle according to claim 7, wherein the CQI adjustment parameter is a cell load value measured by~~

the base station, and the judging module comprises:

a first judging sub-module (701), configured to determine whether the cell load value measured by the base station is greater than a first load threshold value, and when the cell load value measured by the base station is greater than the first load threshold value, the adjusting the CQI feedback cycle of the user equipment is increasing the CQI feedback cycle of the user equipment; and

determine whether the cell load value measured by the base station is smaller than a second load threshold value, and when the cell load value measured by the base station is smaller than the second load threshold value, the adjusting the CQI feedback cycle of the user equipment is decreasing the CQI feedback cycle of the user equipment.

9. The apparatus for adjusting the channel quality indicator CQI feedback cycle according to claim 7, wherein the CQI adjustment parameter is a cell user number measured by the base station, and the judging module comprises:

a second judging sub-module (702), configured to determine whether the cell user number measured by the base station is greater than a first user number threshold value, and when the cell user number measured by the base station is greater than the first user number threshold value, the adjusting the CQI feedback cycle of the user equipment is increasing the CQI feedback cycle of the user equipment; and

determine whether the cell user number measured by the base station is smaller than a second user number threshold value, and when the cell user number measured by the base station is smaller than the second user number threshold value, the adjusting the CQI feedback cycle of the user equipment is decreasing the CQI feedback cycle of the user equipment.

10. The apparatus for adjusting the channel quality indicator CQI feedback cycle according to claim 7, wherein the CQI adjustment parameter is a value of power used by the user equipment reported by the base station, and the judging module comprises:

a third judging sub-module (703), configured to determine whether the value of power used by the user equipment reported by the base station is greater than a first power threshold value, and when the value of power used by the user equipment is greater than the first power threshold value, the adjusting the CQI feedback cycle of the user equipment is increasing the

CQI feedback cycle of the user equipment; and

determine whether the value of power used by the user equipment reported by the base station is smaller than a second power threshold value, and when the value of power used by the user equipment is smaller than the second power threshold value, the adjusting the CQI feedback cycle of the user equipment is decreasing the CQI feedback cycle of the user equipment.

11. The apparatus for adjusting the channel quality indicator CQI feedback cycle according to claim 7, wherein the CQI adjustment parameter is a user event type reported by the base station, and the judging module comprises:

a fourth judging sub-module (704), configured to determine whether the user event type reported by the base station is a 6B event, and when the user event type is the 6B event, the adjusting the CQI feedback cycle of the user equipment is increasing the CQI feedback cycle of the user equipment; and

determine whether the user event type reported by the base station is a 6A event, and when the user event type is the 6A event, the adjusting the CQI feedback cycle of the user equipment is decreasing the CQI feedback cycle of the user equipment.

124. A system for adjusting a channel quality indicator feedback cycle, comprising: a base station controlling apparatus (801) according to claim 3 and a base station (802); wherein

the base station (802) is configured to feed back the CQI adjustment parameter to the base station controlling apparatus, and forward a CQI feedback cycle adjusted by the base station controlling apparatus to a user equipment.

the base station controlling apparatus (801) is configured to:

receive a channel quality indicator, CQI, adjustment parameter fed back by the base station;

determine, according to the CQI adjustment parameter, whether a CQI feedback cycle of a user equipment needs to be adjusted, and

when the base station controlling apparatus determines that the CQI feedback cycle needs to be adjusted, adjust the CQI feedback cycle of the user equipment; and

the base station (802) is configured to feed back the CQI adjustment parameter to the

~~base station controlling apparatus, and forward a CQI feedback cycle adjusted by the base station controlling apparatus to a user equipment.~~

~~13. The system for adjusting the channel quality indicator CQI feedback cycle according to claim 12, wherein~~

5 ~~the feedback CQI adjustment parameter is a cell load value, or a cell user number, or a user equipment transmit power value.~~