

## CLAIMS

1. A method for Physical Uplink Control Channel (PUCCH) transmission, comprising:
  - determining, by a terminal device, a maximum code rate for transmission of a PUCCH from at least one maximum code rate of the PUCCH, the maximum code rate for transmission of the PUCCH being determined according to a service corresponding to Uplink Control Information (UCI); and
  - determining, by the terminal device, ~~Uplink Control Information (the UCI)~~ born in the PUCCH according to the maximum code rate for transmission of the PUCCH.
2. The method of claim 1, wherein the maximum code rate is configured for different PUCCH formats.
3. The method of claim 1 or 2, wherein the maximum code rate for transmission of the PUCCH is further determined according to at least one of: a UCI type, ~~a service corresponding to the UCI~~, a PUCCH format, a PUCCH resource configuration, a scrambling manner for data corresponding to the UCI or a downlink control channel configuration corresponding to the data corresponding to the UCI.
4. The method of any one of claims 1-3, wherein the UCI type comprises at least one of:
  - a Hybrid Auto Repeat Request (HARQ) ACKnowledgement (ACK)/Non-ACKnowledgement (NACK), Channel State Information (CSI) or a Service Request (SR).
5. The method of claim 3 or 4, wherein the downlink control channel configuration comprises at least one of:
  - a Cyclic Redundancy Check, CRC, scrambling manner for a downlink control channel, a search space where the downlink control channel is located, a Control Resource Set, CORESET, where the downlink control channel is located, an aggregation level of the downlink control channel or a downlink control channel format.
6. The method of any one of claims 1-5, before determining, by the terminal device,

the maximum code rate for transmission of the PUCCH from the at least one maximum code rate for transmission of the PUCCH, further comprising:

receiving, by the terminal device, the at least one maximum code rate, configured by a network device, of the PUCCH.

7. A method for Physical Uplink Control Channel (PUCCH) transmission, comprising:

determining, by a network device, a maximum code rate for transmission of a PUCCH from at least one maximum code rate of the PUCCH, the maximum code rate for transmission of the PUCCH being determined according to a service corresponding to Uplink Control Information (UCI); and

determining, by the network device, ~~Uplink Control Information (the UCI)~~ born in the PUCCH according to the maximum code rate for transmission of the PUCCH.

8. The method of claim 7, wherein the maximum code rate is configured for different PUCCH formats.

9. A terminal device, comprising:

a processing unit, configured to determine a maximum code rate for transmission of a Physical Uplink Control Channel (PUCCH) from at least one maximum code rate of the PUCCH, the maximum code rate for transmission of the PUCCH being determined according to a service corresponding to Uplink Control Information (UCI), wherein

the processing unit is further configured to determine ~~Uplink Control Information (the UCI)~~ born in the PUCCH according to the maximum code rate for transmission of the PUCCH.

10. The terminal device of claim 9, wherein the maximum code rate is configured for different PUCCH formats.

11. The terminal device of claim 9 or 10, wherein the at least one maximum code rate of the PUCCH is further determined according to at least one of: a UCI type, ~~a service corresponding to the UCI~~, a PUCCH format, a PUCCH resource configuration, a scrambling manner for data corresponding to the UCI or a downlink control channel

configuration corresponding to the data corresponding to the UCI.

12. The terminal device of claim 11, wherein the UCI type comprises at least one of:

a Hybrid Auto Repeat Request, HARQ, ACKnowledgement, ACK/Non-ACKnowledgement, NACK, Channel State Information, CSI, or a Service Request, SR.

13. The terminal device of claim 11 or 12, wherein the downlink control channel configuration comprises at least one of:

a Cyclic Redundancy Check (CRC) scrambling manner for a downlink control channel, a search space where the downlink control channel is located, a Control Resource Set (CORESET) where the downlink control channel is located, an aggregation level of the downlink control channel or a downlink control channel format.

14. The terminal device of any one of claims 9-13, before the processing unit determines the maximum code rate for transmission of the PUCCH from the at least one maximum code rate for transmission of the PUCCH, further comprising:

a receiving unit, configured to receive the at least one maximum code rate, configured by a network device, of the PUCCH.

15. A network device, comprising:

a processing unit, configured to determine a maximum code rate for transmission of a Physical Uplink Control Channel (PUCCH) from at least one maximum code rate of the PUCCH, the maximum code rate for transmission of the PUCCH being determined according to a service corresponding to Uplink Control Information (UCI), wherein

the processing unit is further configured for the network device to determine Uplink Control Information (the UCI) born in the PUCCH according to the maximum code rate for transmission of the PUCCH.

16. The network device of claim 15, wherein the at least one maximum code rate of the PUCCH is further determined according to at least one of: a UCI type, ~~a service corresponding to the UCI~~, a PUCCH format, a PUCCH resource configuration, a scrambling manner for data corresponding to the UCI or a downlink control channel

configuration corresponding to the data corresponding to the UCI.

17. The network device of claim 16, wherein the UCI type comprises at least one of:
  - a Hybrid Auto Repeat Request (HARQ) ACKnowledgement (ACK)/Non-ACKnowledgement (NACK), Channel State Information (CSI) or a Service Request (SR).
18. The network device of claim 16, wherein the downlink control channel configuration comprises at least one of:
  - a Cyclic Redundancy Check (CRC) scrambling manner for a downlink control channel, a search space where the downlink control channel is located, a Control Resource Set (CORESET) where the downlink control channel is located, an aggregation level of the downlink control channel or a downlink control channel format.
19. The network device of claim 15, wherein the processing unit is further configured to, before the processing unit determines the maximum code rate for transmission of the PUCCH from the at least one maximum code rate for transmission of the PUCCH, configure the at least one maximum code rate of the PUCCH.
20. The network device of any one of claims 15-19, wherein the maximum code rate is configured for different PUCCH formats.