CLAIMS

~~WHAT IS CLAIMED IS:~~

1.——A method of wireless communication at a first User Equipment (UE), comprising:

receiving a first grant for a first set of allocated uplink resources;

transmitting a first portion of a first set of repetitions of a first uplink transmission using the first set of allocated uplink resources;

receiving a second grant for a second set of allocated uplink resources;

determining whether the second grant indicates a Hybrid Automatic Repeat Request (HARQ) Acknowledgement (ACK) for the first uplink transmission, ~~wherein~~ the determining ~~of~~ whether the second grant indicates the HARQ-ACK for the first uplink transmission ~~is~~being based on whether the first set of allocated uplink resources overlaps with the second set of allocated uplink resources; and

terminating transmission of a remaining portion of the first set of repetitions of the first uplink transmission after determining that the second grant indicates the HARQ-ACK for the first uplink transmission.

2.——The method of claim 1, wherein ~~the~~ determining ~~of~~ whether the second grant indicates the HARQ-ACK for the first uplink transmission is further based on whether the second grant is a retransmission request of the first uplink transmission.

3.——The method of claim 2, wherein ~~the~~ determining ~~of~~ whether the second grant is the retransmission request of the first uplink transmission is based on at least one of

a first HARQ identifier (ID) of the first uplink transmission and a second HARQ ID of a second uplink transmission, or

a first new data indicator of the first uplink transmission and a second new data indicator of the second uplink transmission.

4.——The method of claim 1, wherein ~~the~~ determining ~~of~~ whether the second grant indicates the HARQ-ACK for the first uplink transmission is further based on at least one of a spacing in time between a beginning of the first uplink transmission and the second grant, or a spacing in time between the first grant and the second grant.

~~a spacing in time between a beginning of the first uplink transmission and the second grant, or~~

~~a spacing in time between the first grant and the second grant.~~

5. The method of claim 1, wherein ~~the~~ determining ~~of~~ whether the second grant indicates the HARQ-ACK for the first uplink transmission is further based on whether the first set of allocated uplink resources overlaps with the second set of allocated uplink resources in time.

6. The method of claim 1, further comprising:

receiving a configuration, ~~and~~

wherein ~~the~~ determining ~~of~~ whether the second grant indicates the HARQ-ACK for the first uplink transmission is further based on the configuration.

7. The method of claim 6, wherein the configuration comprises an indication of whether uplink HARQ-ACK feedback is supported.

8. The method of claim 7, wherein the second grant is determined to indicate the HARQ-ACK for the first uplink transmission when the configuration indicates that the uplink HARQ-ACK feedback is supported, and wherein the second grant is determined to not indicate the HARQ-ACK for the first uplink transmission when the configuration indicates that the uplink HARQ-ACK feedback is not supported.

9. The method of claim 1, further comprising:

terminating remaining repetitions of the first set of repetitions of the first uplink transmission in response to determining that the second grant indicates the HARQ-ACK for the first uplink transmission.

10. The method of claim 9, wherein ~~transmission~~transmitting the first portion of the first set of repetitions ends before a start of a second uplink transmission.

11. The method of claim 10, further comprising:

transmitting ~~a~~the second uplink transmission according to the second grant using a starting point based on an end point of the second grant.

12. The method of claim 10, further comprising:

transmitting ~~a~~the second uplink transmission according to the second grant using a starting point selected from a set of multiple starting points.

13. The method of claim 12, further comprising:

receiving signaling indicating the set of multiple starting points, wherein the signaling comprises at least one of system information, downlink control information, or radio resource control.

14. The method of claim 12, wherein the set of multiple starting points is based on a predefined set of starting points.

15. The method of claim 12, wherein the set of multiple starting points depends on at least one of a maximum repetition level of the second grant or an actual repetition level of the second grant.

16. The method of claim 10, further comprising:

sending an indication of the HARQ-ACK from a physical layer to a higher layer upon determining the second grant indicates the HARQ-ACK for the first uplink transmission.

17. The method of claim 1, further comprising:

refraining from terminating the transmission of the remaining portion of the first set of repetitions of the first uplink transmission when the second grant is determined to not indicate the HARQ-ACK for the first uplink transmission.

18. The method of claim 17, wherein the remaining portion of the first set of repetitions are located after ~~the~~ determining that the second grant indicates the HARQ-ACK for the first uplink transmission and that the first set of allocated uplink resources overlaps with the second set of allocated uplink resources.

19. The method of claim 1, further comprising:

scheduling transmission of the first set of repetitions of the first uplink transmission.

20. An apparatus for wireless communication at a first User Equipment (UE), comprising:

means for receiving a first grant for a first set of allocated uplink resources;

means for transmitting a first portion of a first set of repetitions of a first uplink transmission using the first set of allocated uplink resources;

means for receiving a second grant for a second set of allocated uplink resources;

means for determining whether the second grant indicates a Hybrid Automatic Repeat Request (HARQ) Acknowledgement (ACK) for the first uplink transmission, ~~wherein~~ the determining ~~of~~ whether the second grant indicates the HARQ-ACK for the first uplink transmission ~~is~~being based on whether the first set of allocated uplink resources overlaps with the second set of allocated uplink resources; and

means for terminating transmission of a remaining portion of the first set of repetitions of the first uplink transmission after determining that the second grant indicates the HARQ-ACK for the first uplink transmission.

21. The apparatus of claim 20, further comprising:

means for receiving a configuration, ~~and~~

wherein the means for determining whether the second grant indicates the HARQ-ACK for the first uplink transmission is further based on the configuration.

22. The apparatus of claim 20, further comprising:

means for terminating remaining repetitions of the first set of repetitions of the first uplink transmission in response to determining that the second grant indicates the HARQ-ACK for the first uplink transmission.

23. The apparatus of claim 22, further comprising:

means for transmitting a second uplink transmission according to the second grant using a starting point based on an end point of the second grant, wherein transmission of the first set of repetitions ends before a start of a second uplink transmission.

24. The apparatus of claim 22, further comprising:

means for transmitting a second uplink transmission according to the second grant using a starting point selected from a set of multiple starting points, wherein transmission of the first set of repetitions ends before a start of a second uplink transmission.

25. The apparatus of claim 24, further comprising:

means for receiving signaling indicating the set of multiple starting points, wherein the signaling comprises at least one of system information, downlink control information, or radio resource control.

26. The apparatus of claim 22, further comprising:

means for sending an indication of the HARQ-ACK from a physical layer to a higher layer upon determining the second grant indicates the HARQ-ACK for the first uplink transmission, wherein ~~transmission~~transmitting the first portion of the first set of repetitions ends before a start of a second uplink transmission.

27. The apparatus of claim 20, further comprising:

means for refraining from terminating the transmission of the remaining portion of the first set of repetitions of the first uplink transmission when the second grant is determined to not indicate the HARQ-ACK for the first uplink transmission.

28. The apparatus of claim 20, further comprising:

means for scheduling transmission of the first set of repetitions of the first uplink transmission.

29. An apparatus for wireless communication at a first User Equipment (UE), comprising:

a memory; and

at least one processor coupled to the memory and coupled to:

receive a first grant for a first set of allocated uplink resources;

transmit a first portion of a first set of repetitions of a first uplink transmission using the first set of allocated uplink resources;

receive a second grant for a second set of allocated uplink resources;

determine whether the second grant indicates a Hybrid Automatic Repeat Request (HARQ) Acknowledgement (ACK) for the first uplink transmission, ~~wherein the determining~~a determination of whether the second grant indicates the HARQ-ACK for the first uplink transmission ~~is~~being based on whether the first set of allocated uplink resources overlaps with the second set of allocated uplink resources; and

terminate transmission of a remaining portion of the first set of repetitions of the first uplink transmission after determining that the second grant indicates the HARQ-ACK for the first uplink transmission.

30. The apparatus of claim 29, wherein the at least one processor is further configured to determine whether the second grant indicates the HARQ-ACK for the first uplink transmission is further based on whether the second grant is a retransmission request of the first uplink transmission.

31. The apparatus of claim 30, wherein the at least one processor is further configured to determine whether the second grant is the retransmission request of the first uplink transmission based on at least one of

a first HARQ identifier (ID) of the first uplink transmission and a second HARQ ID of a second uplink transmission, or

a first new data indicator of the first uplink transmission and a second new data indicator of the second uplink transmission.

32. The apparatus of claim 29, wherein the at least one processor is further configured to determine whether the second grant indicates the HARQ-ACK for the first uplink transmission is further based on at least one of a spacing in time between a beginning of the first uplink transmission and the second grant, or a spacing in time between the first grant and the second grant.

~~a spacing in time between a beginning of the first uplink transmission and the second grant, or~~

~~a spacing in time between the first grant and the second grant.~~

33. The apparatus of claim 29, wherein the at least one processor is further configured to determine whether the second grant indicates the HARQ-ACK for the first uplink transmission is further based on whether the first set of allocated uplink resources overlaps with the second set of allocated uplink resources in time.

34. The apparatus of claim 29, wherein the at least one processor is further configured to:

receive a configuration; and

determine whether the second grant indicates the HARQ-ACK for the first uplink transmission based on the configuration.

35. The apparatus of claim 34, wherein the configuration comprises an indication of whether uplink HARQ-ACK feedback is supported.

36. The apparatus of claim 35, wherein the at least one processor is further configured to:

determine the second grant indicates the HARQ-ACK for the first uplink transmission when the configuration indicates that the uplink HARQ-ACK feedback is supported; and

determine the second grant does not indicate the HARQ-ACK for the first uplink transmission when the configuration indicates that the uplink HARQ-ACK feedback is not supported.

37. The apparatus of claim 29, wherein the at least one processor is further configured to:

terminate remaining repetitions of the first set of repetitions of the first uplink transmission in response to determining that the second grant indicates the HARQ-ACK for the first uplink transmission.

38. The apparatus of claim 37, wherein the at least one processor is further configured to end ~~transmission~~transmitting the first portion of the first set of repetitions before a start of a second uplink transmission.

39. The apparatus of claim 38, wherein the at least one processor is further configured to:

transmit ~~a~~the second uplink transmission according to the second grant using a starting point based on an end point of the second grant.

40. The apparatus of claim 38, wherein the at least one processor is further configured to:
transmit ~~a~~the second uplink transmission according to the second grant using a starting point selected from a set of multiple starting points.

41. The apparatus of claim 40, wherein the at least one processor is further configured to:
receive signaling indicating the set of multiple starting points, wherein the signaling comprises at least one of system information, downlink control information, or radio resource control.

42. The apparatus of claim 40, wherein the set of multiple starting points is based on a predefined set of starting points.

43. The apparatus of claim 40, wherein the set of multiple starting points depends on at least one of a maximum repetition level of the second grant or an actual repetition level of the second grant.

44. The apparatus of claim 38, wherein the at least one processor is further configured to:
send an indication of the HARQ-ACK from a physical layer to a higher layer upon determining the second grant indicates the HARQ-ACK for the first uplink transmission.

45. The apparatus of claim 29, wherein the at least one processor is further configured to:
refrain from terminating the transmission of the remaining portion of the first set of repetitions of the first uplink transmission when the second grant is determined to not indicate the HARQ-ACK for the first uplink transmission.

46. The apparatus of claim 45, wherein the remaining portion of the first set of repetitions are located after ~~the~~ determining that the second grant indicates the HARQ-ACK for the first uplink transmission and that the first set of allocated uplink resources overlaps with the second set of allocated uplink resources.

47. The apparatus of claim 29, wherein the at least one processor is further configured to:

schedule transmission of the first set of repetitions of the first uplink transmission.

48. A non-transitory computer-readable medium storing computer executable code for wireless communication at a user equipment (UE), the code, when executed, cause a processor to:

receive a first grant for a first set of allocated uplink resources;

transmit a first portion of a first set of repetitions of a first uplink transmission using the first set of allocated uplink resources;

receive a second grant for a second set of allocated uplink resources;

determine whether the second grant indicates a Hybrid Automatic Repeat Request (HARQ) Acknowledgement (ACK) for the first uplink transmission, ~~wherein the determining~~a determination of whether the second grant indicates the HARQ-ACK for the first uplink transmission ~~is~~being based on whether the first set of allocated uplink resources overlaps with the second set of allocated uplink resources; and

terminate transmission of a remaining portion of the first set of repetitions of the first uplink transmission after determining that the second grant indicates the HARQ-ACK for the first uplink transmission.