

CLAIMS

What is claimed is:

CLAIMS

1. ———— A method for wireless communication, comprising:
 - _receiving a first downlink shared channel transmission over a first subset of a first set of frequency resources in a first transmission time interval (TTI);
 - _receiving a downlink control transmission comprising a grant of a second set of frequency resources of a second TTI for a second downlink shared channel transmission, wherein the downlink control transmission comprises an indication that a demodulation reference signal of the first downlink shared channel transmission is reused for the second downlink shared channel transmission;
 - _determining whether to rate match the second downlink shared channel transmission around resources of the second set of frequency resources of the second TTI that are not part overlap in frequency with a second subset of the first set of frequency resources that is exclusive of the first subset of the first set of frequency resources; and
 - _receiving the second downlink shared channel transmission over at least a subset of the second set of frequency resources of the second TTI based at least in part on the determining whether to rate match the second downlink shared channel transmission.

2. ———— The method of claim 1, wherein the determining whether to rate match the second downlink shared channel transmission comprises determining to rate match the second downlink shared channel transmission around resources corresponding to a second downlink control transmission in the first TTI, that is received over the second subset of the first set of frequency resources.

3. ———— The method of claim 1, wherein the second set of frequency resources encompasses the resources corresponding to a second downlink control transmission in the first TTI.

4. ———— The method of claim 1, wherein the determining whether to rate match the second downlink shared channel transmission is based at least in part on a number of layers of the second downlink shared channel transmission.

5. ———— The method of claim 1, further comprising:
 - ~~are not part~~ determining that the resources of the second set of frequency resources that overlap in frequency with the second subset of the first set of frequency resources are associated with a second downlink control transmission in the first TTI, the second downlink control transmission comprising a control channel demodulation reference signal; and
 - receiving at least a portion of the second downlink shared channel transmission over the resources in the second TTI.
6. ———— The method of claim 5, further comprising:
 - demodulating the at least the portion of the second downlink shared channel transmission using the control channel demodulation reference signal.
7. ———— The method of claim 1, wherein:
 - the downlink control transmission comprises a rate matching indicator; and
 - the determining whether to rate match the second downlink shared channel transmission is based at least in part on the rate matching indicator.
8. ———— The method of claim 7, wherein:
 - the rate matching indicator comprises a first indicator associated with a first group of resources of the second set of frequency resources and a second indicator associated with a second group of resources of the second set of frequency resources; and
 - the determining whether to rate match comprises determining whether to rate match around the resources of the second set of frequency resources that ~~are not part~~ overlap at least partially in frequency with the second subset of the first set of frequency resources for the first group of resources and the second group of resources.
9. ———— The method of claim 1, wherein the demodulation reference signal of the first downlink shared channel transmission is used for channel estimation for all allocated frequency resource blocks of the second TTI.
10. ———— An apparatus for wireless communications, comprising:
 - a processor,

_memory in electronic communication with the processor; and
 _instructions stored in the memory and executable by the processor, to cause the apparatus to:

_receive a first downlink shared channel transmission over a first subset of a first set of frequency resources in a first transmission time interval (TTI);

_receive a downlink control transmission comprising a grant of a second set of frequency resources of a second TTI for a second downlink shared channel transmission, wherein the downlink control transmission comprises an indication that a demodulation reference signal of the first downlink shared channel transmission is reused for the second downlink shared channel transmission;

_determine whether to rate match the second downlink shared channel transmission around resources of the second set of frequency resources of the second TTI that are not part of overlap in frequency with a second subset of the first set of frequency resources that excludes each frequency resource of the first set of frequency resources for receiving the first downlink shared channel transmission; and

_receive the second downlink shared channel transmission over at least a subset of the second set of frequency resources of the second TTI based at least in part on the determining whether to rate match the second downlink shared channel transmission.

11.———_The apparatus of claim 10, wherein the determining whether to rate match the second downlink shared channel transmission comprises determining to rate match the second downlink shared channel transmission around resources corresponding to a second downlink control transmission in the first TTI- that is received over the second subset of the first set of frequency resources.

12.———_The apparatus of claim 10, wherein the second set of frequency resources encompasses the resources corresponding to a second downlink control transmission in the first TTI.

13.———_The apparatus of claim 10, wherein the determining whether to rate match the second downlink shared channel transmission is based at least in part on a number of layers of the second downlink shared channel transmission.

14. ———— _The apparatus of claim 10, wherein the instructions are further executable by the processor to cause the apparatus to:

_determine that the resources of the second set of frequency resources that ~~are not part of~~ overlap in frequency with the second subset of the first set of frequency resources are associated with a second downlink control transmission in the first TTI, the second downlink control transmission comprising a control channel demodulation reference signal; and

_receive at least a portion of the second downlink shared channel transmission over the resources in the second TTI.

15. ———— _The apparatus of claim 14, wherein the instructions are further executable by the processor to cause the apparatus to:

_demodulate the at least the portion of the second downlink shared channel transmission using the control channel demodulation reference signal.

16. ———— _The apparatus of claim 10, wherein:

_the downlink control transmission comprises a rate matching indicator; and

_the determining whether to rate match the second downlink shared channel transmission is based at least in part on the rate matching indicator.

17. ———— _The apparatus of claim 16, wherein:

_the rate matching indicator comprises a first indicator associated with a first group of resources of the second set of frequency resources and a second indicator associated with a second group of resources of the second set of frequency resources; and

_the determining whether to rate match comprises determining whether to rate match around the resources of the second set of frequency resources that ~~are not part of~~ overlap in frequency with the second subset of the first set of frequency resources for the first group of resources and the second group of resources.

18. ———— _The apparatus of claim 10, wherein the demodulation reference signal of the first downlink shared channel transmission is used for channel estimation for all allocated frequency resource blocks of the second TTI.

19. ———— _An apparatus for wireless communications, comprising:

_means for receiving a first downlink shared channel transmission over a first subset of a first set of frequency resources in a first transmission time interval (TTI);

_means for receiving a downlink control transmission of a second TTI and comprising a grant of a second set of frequency resources of a second TTI for a second downlink shared channel transmission, wherein the downlink control transmission comprises an indication that a demodulation reference signal of the first downlink shared channel transmission is reused for the second downlink shared channel transmission;

_means for determining whether to rate match the second downlink shared channel transmission around resources of the second set of frequency resources of the second TTI that are not part of overlap in frequency with a second subset of the first set of frequency resources that excludes each frequency resource of the first set of frequency resources for receiving the first downlink shared channel transmission; and

_means for receiving the second downlink shared channel transmission over at least a subset of the second set of frequency resources of the second TTI based at least in part on the determining whether to rate match the second downlink shared channel transmission.

20. ———_The apparatus of claim 19, wherein the determining whether to rate match the second downlink shared channel transmission comprises determining to rate match the second downlink shared channel transmission around resources corresponding to a second downlink control transmission in the first TTI; that is received over the second subset of the first set of frequency resources.

21. ———_The apparatus of claim 19, wherein the second set of frequency resources encompasses the resources corresponding to a second downlink control transmission in the first TTI.

22. ———_The apparatus of claim 19, wherein the determining whether to rate match the second downlink shared channel transmission is based at least in part on a number of layers of the second downlink shared channel transmission.

23. ———_The apparatus of claim 19, further comprising:

_means for determining that the resources of the second set of frequency resources that are not part of overlap in frequency with the second subset of the first set of frequency resources are associated with a second downlink control transmission in the first

TTI, the second downlink control transmission comprising a control channel demodulation reference signal; and

means for receiving at least a portion of the second downlink shared channel transmission over the resources in the second TTI.

24. ——— The apparatus of claim 23, further comprising:

means for demodulating the at least the portion of the second downlink shared channel transmission using the control channel demodulation reference signal.

25. ——— The apparatus of claim 19, wherein:

the downlink control transmission comprises a rate matching indicator; and

the determining whether to rate match the second downlink shared channel transmission is based at least in part on the rate matching indicator.

26. ——— The apparatus of claim 25, wherein:

the rate matching indicator comprises a first indicator associated with a first group of resources of the second set of frequency resources and a second indicator associated with a second group of resources of the second set of frequency resources; and

the determining whether to rate match comprises determining whether to rate match around the resources of the second set of frequency resources that ~~are not part of~~ overlap in frequency with the second subset of the first set of frequency resources for the first group of resources and the second group of resources.

27. ——— The apparatus of claim 19, wherein the demodulation reference signal of the first downlink shared channel transmission is used for channel estimation for all allocated frequency resource blocks of the second TTI.

28. ——— A non-transitory computer-readable medium storing code for wireless communications, the code comprising instructions executable by a processor to:

receive a first downlink shared channel transmission over a first subset of a first set of frequency resources in a first transmission time interval (TTI);

receive a downlink control transmission comprising a grant of a second set of frequency resources of a second TTI for a second downlink shared channel transmission, wherein the downlink control transmission comprises an indication that a demodulation

reference signal of the first downlink shared channel transmission is reused for the second downlink shared channel transmission;

_determine whether to rate match the second downlink shared channel transmission around resources of the second set of frequency resources of the second TTI that are not part of overlap in frequency with a second subset of the first set of frequency resources that excludes each frequency resource of the first set of frequency resources for receiving the first downlink shared channel transmission; and

_receive the second downlink shared channel transmission over at least a subset of the second set of frequency resources of the second TTI based at least in part on the determining whether to rate match the second downlink shared channel transmission.

29. ————_The non-transitory computer-readable medium of claim 28, wherein the determining whether to rate match the second downlink shared channel transmission comprises determining to rate match the second downlink shared channel transmission around resources corresponding to a second downlink control transmission in the first TTI; that is received over the second subset of the first set of frequency resources.

30. ————_The non-transitory computer-readable medium of claim 28, wherein the second set of frequency resources encompasses the resources corresponding to a second downlink control transmission in the first TTI.

31. ————_The non-transitory computer-readable medium of claim 28, wherein the determining whether to rate match the second downlink shared channel transmission is based at least in part on a number of layers of the second downlink shared channel transmission.

32. ————_The non-transitory computer-readable medium of claim 28, wherein the instructions are further executable by the processor to:

_determine that the resources of the second set of frequency resources that ~~are not part of~~ overlap in frequency with the second subset of the first set of frequency resources are associated with a second downlink control transmission in the first TTI, the second downlink control transmission comprising a control channel demodulation reference signal; and

_receive at least a portion of the second downlink shared channel transmission over the resources in the second TTI.

33. ———— The non-transitory computer-readable medium of claim 32, wherein the instructions are further executable by the processor to:

 demodulate the at least the portion of the second downlink shared channel transmission using the control channel demodulation reference signal.

34. ———— The non-transitory computer-readable medium of claim 28, wherein:

 the downlink control transmission comprises a rate matching indicator; and

 the determining whether to rate match the second downlink shared channel transmission is based at least in part on the rate matching indicator.

35. ———— The non-transitory computer-readable medium of claim 34, wherein:

 the rate matching indicator comprises a first indicator associated with a first group of resources of the second set of frequency resources and a second indicator associated with a second group of resources of the second set of frequency resources; and

 the determining whether to rate match comprises determining whether to rate match around the resources of the second set of frequency resources that ~~are not part of~~ overlap with the second subset of the first set of frequency resources for the first group of resources and the second group of resources.

36. ———— The non-transitory computer-readable medium of claim 28, wherein the demodulation reference signal of the first downlink shared channel transmission is used for channel estimation for all allocated frequency resource blocks of the second TTI.