CLAIMS

1. A method of wireless communication, comprising:

encoding, by a first wireless communication device, first information in a first sub-block having a first bit location and second information in a second sub-block having a second bit location after the first bit location into an encoded information block;

wherein the first bit location is located earlier in a decoding order of a receiving second wireless communication device than the second bit location; and

transmitting, by the first wireless communication device, the encoded information block to the receiving second wireless communication device.

2. The method of claim 1, wherein the first information comprises system frame information.

3. The method of claim 1, wherein the second information comprises scheduling information.

4. The method of claim 1, further comprising:

selecting the first bit location based on a first estimated reliability for the first bit location; and

selecting the second bit location based on a second estimated reliability for the second bit location, wherein the first estimated reliability is less than the second estimated reliability.

5. The method of claim 1, wherein the encoding comprises polar encoding.

6. The method of claim 5, wherein the encoded information block comprises a first encoded information block, the method further comprising:

polar encoding, by the first wireless communication device, third information in a third sub-block and fourth information in a fourth sub-block, the third sub-block being associated with the first sub-block and the fourth sub-block being associated with the second sub-block, into a second encoded information block; and

transmitting, by the first wireless communication device, the second encoded information block after the encoded information block to the receiving second wireless communication device.

7. The method of claim 6, wherein:

the first sub-block comprises a first plurality of information, the second sub-block comprises a second plurality of information, the third sub-block comprises a third plurality of information, and the fourth sub-block comprises a fourth plurality of information;

the polar encoding for the first encoded information block comprises combining the first information with first elements from the first and second pluralities of information, and the second information with second elements from the second plurality of information; and

the polar encoding for the second encoded information block comprises combining the third information with third elements from the third and fourth pluralities of information, and the fourth information with fourth elements from the fourth plurality of information.

8. The method of claim 7, wherein the polar encoding of the first and second encoded information blocks comprises a natural order encoding.

9. The method of claim 6, wherein:

the polar encoding the first and second sub-blocks comprises positioning the second sub-block subsequent to the first sub-block in the first encoded information block; and

the polar encoding the third and fourth sub-blocks comprises positioning the fourth sub-block subsequent to the third sub-block in the second encoded information block.

10. The method of claim 1, wherein the first information comprises a beam index.

11. A method of wireless communication, comprising:

receiving, by a first wireless communication device, an encoded information block from a second wireless communication device, the encoded information block comprising a first sub-block having a first bit location and a second sub-block having a second bit location after the first bit location;

decoding, by the first wireless communication device, the first sub-block; and

decoding, by the first wireless communication device, the second sub-block after the first sub-block.

12. The method of claim 11, wherein the first sub-block comprises system frame number information.

13. The method of claim 11, wherein the second sub-block comprises scheduling information.

14. The method of claim 11, wherein the encoded information block comprises a first encoded information block, the method further comprising:

receiving, by the first wireless communication device, a second encoded information block from the second wireless communication device, the second encoded information block comprising a third sub-block and a fourth sub-block, the third sub-block being associated with the first sub-block, and the fourth sub-block being associated with the second sub-block;

determining, by the first wireless communication device, a correlation value between the second sub-block and the fourth sub-block; and

adopting, by the first wireless communication device, the information included in the second sub-block as information included in the fourth sub-block in place of decoding the second encoded information block, in response to determining that the correlation value is less than a threshold.

15. The method of claim 14, further comprising:

decoding, by the first wireless communication device, the fourth sub-block of the second encoded information block in response to determining that the correlation value is greater than the threshold.

16. The method of claim 14, further comprising:

determining, by the first wireless communication device, a first plurality of log-likelihood ratios (LLRs) from the first encoded information block as a first estimate for the second sub-block; and

determining, by the first wireless communication device, a second plurality of LLRs from the second encoded information block as a second estimate for the fourth sub-block.

17. The method of claim 16, wherein:

selecting a subset of the first plurality of LLRs for the first estimate, wherein the selecting the subset of the first plurality of LLRs is based on a first bit-reversal placement, and

selecting a subset of the second plurality of LLRs for the second estimate, wherein the selecting the subset of the second plurality of LLRs is based on a second bit-reversal placement.

18. The method of claim 16, wherein:

the determining the correlation value comprises comparing, by the first wireless communication device, the first and second estimates to each other to determine the correlation value; and

normalizing, by the first wireless communication device, the correlation value to generate a normalized correlation coefficient, the normalized correlation coefficient being compared against the threshold.

19. The method of claim 11, wherein the first sub-block comprises a beam index.

20. An apparatus, comprising:

a memory;

a processor coupled to the memory, the memory and the processor configured to:

encode first information in a first sub-block having a first bit location and second information in a second sub-block having a second bit location after the first bit location into an encoded information block;

wherein the first bit location is located earlier in a decoding order of a wireless communication device than the second bit location; and

a transceiver configured to transmit the encoded information block to the wireless communication device.

21. The apparatus of claim 20, wherein the first information comprises system frame information.

22. The apparatus of claim 20, wherein the second information comprises scheduling information.

23. The apparatus of claim 20, wherein the memory and the processor are further configured to:

polar encode the first and second information as the encoded information block.

24. The apparatus of claim 23, wherein the encoded information block comprises a first encoded information block and the memory and the processor are further configured to:

polar encode third information in a third sub-block and fourth information in a fourth sub-block, the third sub-block being associated with the first sub-block and the fourth sub-block being associated with the second sub-block, into a second encoded information block,

wherein the transceiver is further configured to transmit the second encoded information block after the encoded information block to the wireless communication device.

25. The apparatus of claim 24, wherein:

the first sub-block comprises a first plurality of information, the second sub-block comprises a second plurality of information, the third sub-block comprises a third plurality of information, and the fourth sub-block comprises a fourth plurality of information;

the memory and the processor are further configured, as part of the polar encoding for the first encoded information block, combine the first information with first elements from the first and second pluralities of information, and the second information with second elements from the second plurality of information; and

the memory and the processor are further configured, as part of the polar encoding for the second encoded information block, to combine the third information with third elements from the

third and fourth pluralities of information, and the fourth information with fourth elements from the fourth plurality of information.

26. The apparatus of claim 25, wherein the polar encoding of the first and second information blocks comprises a natural order encoding.

27. The apparatus of claim 25, wherein the polar encoding of the first and second information blocks comprises a reverse order encoding.

28. The apparatus of claim 24, wherein the memory and the processor are further configured to:

position the second sub-block subsequent to the first sub-block in the first encoded information block; and

position the fourth sub-block subsequent to the third sub-block in the second encoded information block.

29. The apparatus of claim 20, wherein the first information comprises a beam index.

30. An apparatus, comprising:

a transceiver configured to receive, by the apparatus, an encoded information block from a wireless communication device, the encoded information block comprising a first sub-block having a first bit location and a second sub-block having a second bit location after the first bit location;

a memory; and

a processor coupled to the memory, the memory and the processor configured to decode the first sub-block and decode the second sub-block after the first sub-block.

31. The apparatus of claim 30, wherein the first sub-block comprises system frame number information.

32. The apparatus of claim 30, wherein the second sub-block comprises scheduling information.

33. The apparatus of claim 30, wherein:

the encoded information block comprises a first encoded information block;

the transceiver is further configured to receive a second encoded information block from the wireless communication device, the second encoded information block comprising a third sub-block and a fourth sub-block, the third sub-block being associated with the first sub-block, and the fourth sub-block being associated with the second sub-block; and

the memory and the processor are further configured to determine a correlation value between the second sub-block and the fourth sub-block and adopt the information included in the second sub-block as information included in the fourth sub-block in place of decoding the second encoded information block in response to determining that the correlation value is less than a threshold.

34. The apparatus of claim 33, wherein the memory and the processor are further configured to:

decode the fourth sub-block of the second encoded information block in response to the determination that the correlation value is greater than the threshold.

35. The apparatus of claim 33, wherein the memory and the processor are further configured to:

determine a first plurality of log-likelihood ratios (LLRs) from the first encoded information block as a first estimate for the second sub-block; and

determine a second plurality of LLRs from the second encoded information block as a second estimate for the fourth sub-block.

36. The apparatus of claim 35, wherein the memory and the processor are further configured to:

select a subset of the first plurality of LLRs for the first estimate, wherein the selection of the subset of the first plurality of LLRs is based on a first bit-reversal placement; and

select a subset of the second plurality of LLRs for the second estimate, wherein the selection of the subset of the second plurality of LLRs is based on a second bit-reversal placement.

37. The apparatus of claim 35, wherein the memory and the processor are further configured to:

compare, as part of the determination of the correlation value, the first and second estimates to each other to determine the correlation value; and

normalize the correlation value to generate a normalized correlation coefficient, the normalized correlation coefficient being compared against the threshold.

38. The apparatus of claim 30, wherein the apparatus comprises a user equipment and the wireless communication device comprises an evolved node B.

39. The apparatus of claim 30, wherein the first sub-block comprises a beam index.

40. A non-transitory computer-readable medium having program code recorded thereon, the program code comprising:

code for causing a first wireless communication device to encode first information in a first sub-block having a first bit location and second information in a second sub-block having a second bit location after the first bit location into an encoded information block;

wherein the first bit location is located earlier in a decoding order of a receiving second wireless communication device than the second bit location; and

code for causing the first wireless communication device to transmit the encoded information block to the receiving second wireless communication device.

41. The non-transitory computer-readable medium of claim 40, wherein the second information comprises scheduling information.

42. The non-transitory computer-readable medium of claim 40, wherein the encoding comprises polar encoding.

43. The non-transitory computer-readable medium of claim 40, wherein the first information comprises a beam index.

44. A non-transitory computer-readable medium having program code recorded thereon, the program code comprising:

code for causing a first wireless communication device to receive an encoded information block from a second wireless communication device, the encoded information block comprising a first sub-block having a first bit location and a second sub-block having a second bit location after the first bit location;

code for causing the first wireless communication device to decode the first sub-block; and

code for causing the first wireless communication device to decode the second sub-block after the first sub-block.

45. The non-transitory computer-readable medium of claim 44, wherein the second sub-block comprises scheduling information.

46. The non-transitory computer-readable medium of claim 44, wherein the first sub-block comprises a beam index.

47. An apparatus, comprising

means for encoding first information in a first sub-block having a first bit location and second information in a second sub-block having a second bit location after the first bit location into an encoded information block;

wherein the first bit location is located earlier in a decoding order of a receiving wireless communication device than the second bit location; and

means for transmitting the encoded information block to the receiving wireless communication device.

48. The apparatus of claim 47, wherein the second information comprises scheduling information.

49. The apparatus of claim 47, wherein the encoding comprises polar encoding.

50. The apparatus of claim 47, wherein the first information comprises a beam index.

51. An apparatus, comprising:

means for receiving an encoded information block from a wireless communication device, the encoded information block comprising a first sub-block having a first bit location and a second sub-block having a second bit location after the first bit location;

means for decoding the first sub-block; and

means for decoding the second sub-block after the first sub-block.

52. The apparatus of claim 51, wherein the second sub-block comprises scheduling information.

53. The apparatus of claim 51, wherein the first sub-block comprises a beam index.