CLAIMS

1. An apparatus for wireless communications, comprising: at least one processor coupled with a memory and comprising at least one encoder circuit configured to: obtain bits of information to be transmitted; perform cyclic redundancy check (CRC) outer encoding of the bits of information using an even-weighted generator polynomial to produce CRC encoded bits; perform polar inner encoding of the CRC encoded bits to generate a codeword; and discard a first code bit at a beginning of the codeword to produce a shortened codeword, wherein the discarding the first code bit is based on use of the even-weighted generator polynomial; and a transmitter configured to transmit the shortened codeword in accordance with a wireless technology across a channel via one or more antenna elements situated proximate the transmitter.

2. The apparatus of claim 1, wherein the first code bit is equal to a modulo-2 sum of the CRC encoded bits.

3. The apparatus of claim 2, wherein the first code bit comprises a dummy bit.

4. The apparatus of claim 1, wherein the performing polar inner encoding includes: setting one or more most reliable bits as information bits; and setting one or more other bits as frozen bits.

5. An apparatus for wireless communications, comprising: at least one processor coupled with a memory and comprising at least one encoder circuit configured to: obtain bits of information to be transmitted; perform cyclic redundancy check (CRC) outer encoding of the bits of information using an even-weighted generator polynomial to produce CRC encoded bits; perform bit scrambling of the bits of information and the CRC encoded bits, wherein the performing bit scrambling is based on use of the even-weighted generator polynomial; and perform polar inner encoding of the scrambled bits of information and CRC encoded bits to generate a codeword; and a transmitter configured to transmit the codeword in accordance with a wireless technology across a channel via one or more antenna elements situated proximate the transmitter.

6. The apparatus of claim 5, wherein a first code bit at a beginning of the codeword is

equal to a non-zero bit.

7. The apparatus of claim 5, wherein the performing polar inner encoding includes: setting one or more most reliable bits as information bits; and setting one or more other bits as frozen bits.

8. An apparatus for wireless communications, comprising: at least one processor coupled with a memory and comprising at least one encoder circuit configured to: obtain bits of information to be transmitted; select only odd-weighted generator polynomials for performing cyclic redundancy check (CRC) outer encoding of the bits of information to produce CRC encoded bits; perform polar inner encoding of the CRC encoded bits to generate a codeword; and a transmitter configured to transmit the codeword in accordance with a wireless technology across a channel via one or more antenna elements situated proximate the transmitter.

9. A method of encoding bits of information, comprising: obtaining the bits of information to be transmitted; performing cyclic redundancy check (CRC) outer encoding of the bits of information using an even-weighted generator polynomial to produce CRC encoded bits; performing polar inner encoding of the CRC encoded bits to generate a codeword; discarding a first code bit at a beginning of the codeword to produce a shortened codeword, wherein the discarding the first code bit is based on use of the even-weighted generator polynomial; and transmitting the shortened codeword in accordance with a wireless technology across a channel via one or more antenna elements situated proximate a transmitter.

10. The method of claim 9, wherein the first code bit is equal to a modulo-2 sum of the CRC encoded bits.

11. The method of claim 10, wherein the first code bit comprises a dummy bit.

12. The method of claim 9, wherein the performing polar inner encoding includes: setting one or more most reliable bits as information bits; and setting one or more other bits as frozen bits.

13. A method of encoding bits of information, comprising: obtaining the bits of information to be transmitted; performing cyclic redundancy check (CRC) outer encoding of the bits of information using an even-weighted generator polynomial to produce CRC encoded bits; performing bit scrambling of the bits of information and the CRC encoded bits, wherein the performing bit scrambling is based on use of the even-weighted generator polynomial; performing polar inner encoding of the scrambled bits of information and CRC encoded bits to generate a codeword; and transmitting the codeword in accordance with a wireless technology across a channel via one or more antenna elements situated proximate a transmitter.

14. The method of claim 13, wherein a first code bit at a beginning of the codeword is equal to a non-zero bit.

15. The method of claim 13, wherein the performing polar inner encoding includes: setting one or more most reliable bits as information bits; and setting one or more other bits as frozen bits.

16. A method of encoding bits of information, comprising: obtaining the bits of information to be transmitted; selecting only odd-weighted generator polynomials for performing cyclic redundancy check (CRC) outer encoding of the bits of information to produce CRC encoded bits; performing polar inner encoding of the CRC encoded bits to generate a codeword; and transmitting the codeword in accordance with a wireless technology across a channel via one or more antenna elements situated proximate a transmitter.