CLAIMS

1. A user equipment (UE) for wireless communication, comprising:

at least one memory; and

at least one processor coupled with the at least one memory and configured to cause the UE to:

receive an uplink configuration;

apply a multiplexing sequence to process uplink data based on the uplink configuration, wherein the multiplexing sequence is associated with a spreading factor; and

transmit the processed uplink data.

2. The UE of claim 1, wherein, to apply the multiplexing sequence to process the uplink data, the at least one processor is configured to cause the UE to:

divide the uplink data into a number of segments; and

apply the multiplexing sequence to process each segment of the uplink data, wherein each processed segment is spreaded with the spreading factor in time domain.

3. The UE of claim 2, wherein to apply the multiplexing sequence to process each segment is based on a single slot level or a single symbol level.

4. The UE of any of claims 1 to 3, wherein, to transmit the processed uplink data, the at least one processor is configured to cause the UE to:

transmit the processed uplink data with a first repetition number in a plurality of slots.

5. The UE of claim 4, wherein, to transmit the processed uplink data, the at least one processor is configured to cause the UE to:

cyclically adopt two redundancy versions (RVs) across subblocks of the plurality of slots, wherein a length of each subblock is based on the spreading factor.

6. The UE of any of claims 1 to 3, wherein the uplink data comprises multiple transport blocks (TBs), and the at least one processor is configured to cause the UE to:

transmit the multiple TBs by interleaving, wherein each TB spans a duration of a number of slots determined by the spreading factor.

7. A method for wireless communication performed by a user equipment (UE), the method comprising:

receiving an uplink configuration;

applying a multiplexing sequence to process uplink data based on the uplink configuration, wherein the multiplexing sequence is associated with a spreading factor; and

transmitting the processed uplink data.

8. The method of claim 7, wherein applying the multiplexing sequence to process the uplink data comprises:

dividing the uplink data into a number of segments; and

applying the multiplexing sequence to process each segment of the uplink data, wherein each processed segment is spreaded with the spreading factor in time domain.

9. The method of claim 8, wherein applying the multiplexing sequence to process each segment is based on a single slot level or a single symbol level.

10. The method of any of claims 7 to 9, wherein transmitting the processed uplink data comprises:

transmitting the processed uplink data with a first repetition number in a plurality of slots.

11. The method of claim 10, wherein transmitting the processed uplink data comprises:

cyclically adopting two redundancy versions (RVs) across subblocks of the plurality of slots, wherein a length of each subblock is based on the spreading factor.

12. The method of any of claims 7 to 9, wherein the uplink data comprises multiple transport blocks (TBs), and the method further comprising:

transmitting the multiple TBs by interleaving, wherein each TB spans a duration of a number of slots determined by the spreading factor.

13. A network equipment (NE) for wireless communication, comprising:

at least one memory; and

at least one processor coupled with the at least one memory and configured to cause the NE to:

transmit an uplink configuration; and

receive uplink data based on the uplink configuration, wherein a multiplexing sequence is applied to the uplink data based on the uplink configuration, and the multiplexing sequence is associated with a spreading factor.

14. The NE of claim 13, wherein the multiplexing sequence is applied to each segment based on a single slot level or a single symbol level.

15. A method performed by a network equipment (NE), comprising:

transmitting an uplink configuration; and

receiving uplink data based on the uplink configuration, wherein a multiplexing sequence is applied to the uplink data based on the uplink configuration, and the multiplexing sequence is associated with a spreading factor.