

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-12. (Cancelled)

13. (New) A user equipment comprising:

circuitry configured to receive a signal transmitted by a plurality of antennas; wherein the signal includes user data that was combined with a plurality of different pseudo noise sequences; wherein the user data was weighted prior to transmission; wherein the signal includes for each of the plurality of antennas pilot bits; wherein the pilot bits for each antenna were derived from a plurality of different pseudo noise sequences;

the circuitry is further configured to derive preferred weights for a subsequent received signal based on the received signal;

the circuitry is further configured to transmit an indication of the preferred weights to a base station;

the circuitry is further configured to recover user data from each of the different pseudo noise sequences; and

the circuitry is further configured to combine the recovered user data from each of the different pseudo noise sequences.

14. (New) A method for use by a user equipment (UE), the method comprising:

receiving, by the UE, a signal transmitted by a plurality of antennas; wherein the signal includes user data that was combined with a plurality of different pseudo noise sequences; wherein the user data was weighted prior to transmission; wherein the signal includes for each of the plurality of antennas pilot bits; wherein the pilot bits for each antenna were derived from a plurality of different pseudo noise sequences;

deriving, by the UE, preferred weights for a subsequent received signal based on the received signal;

transmitting, by the UE, an indication of the preferred weights to a base station;

recovering, by the UE, user data from each of the different pseudo noise sequences; and

combining, by the UE, the recovered user data from each of the different pseudo noise sequences.

15. (New) A network device comprising:
- circuitry configured to receive weights from a user equipment (UE);
 - the circuitry is further configured to produce user data for transmission to the UE;
 - the circuitry is further configured to combine the user data with a plurality of different pseudo noise sequences;
 - the circuitry is further configured to weight the user data combined with the plurality of different pseudo noise sequences;
 - the circuitry is further configured to produce pilot bits for each antenna of a plurality of antennas; wherein the pilot bits for each antenna are derived using different pseudo noise sequences; and
 - the plurality of antennas configured to transmit the weighted user data combined with the plurality of different pseudo noise sequences and the produced pilot bits for the plurality of antennas to the UE.