

ABSTRACT**METHOD AND APPARATUS FOR SUPPORTING MULTI-USER AND SINGLE-USER MIMO IN A WIRELESS COMMUNICATION SYSTEM**

Techniques for supporting distributed multiple-input multiple-output (MIMO) transmissions are described. In one design, a user equipment (UE) determines channel estimates for multiple cells and reports the channel estimates. The UE thereafter receives a data transmission sent by the multiple cells to the UE based on the channel estimates. The data transmission may include at least one data stream, and each data stream may be sent by one cell or the multiple cells to the UE. In another design, a UE determines first and second channel estimates for first and second cells, respectively, and reports the channel estimates. The UE then receives a first data transmission sent by the first cell to the UE based on the first channel estimate. The UE also receives a second data transmission sent by the second cell to another UE and steered away from the UE based on the second channel estimate.

Figure 2