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(54) Title: MULTIPLEXING AND TRANSMISSION OF TRAFFIC DATA AND CONTROL INFORMATION IN A WIRELESS COMMUNICATION SYSTEM

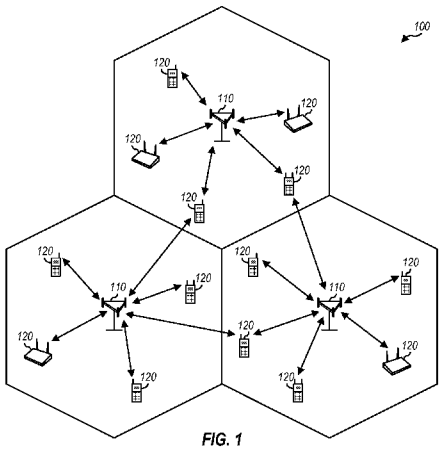

FIG. 1

(57) Abstract: Techniques for transmitting traffic data and control information in a wireless communication system are described. In an aspect, traffic data and control information may be multiplexed at a coded data level. A user equipment (UE) may encode traffic data to obtain coded traffic data, encode control information to obtain coded control data, multiplex the coded traffic data and the coded control data, modulate the multiplexed data, and generate SC-FDMA symbols. In another aspect, traffic data and control information may be multiplexed at a modulation symbol level. The UE may encode and modulate traffic data to obtain data modulation symbols, encode and modulate control information to obtain control modulation symbols, multiplex the data and control modulation symbols, and generate SC-FDMA symbols. The UE may perform rate matching for traffic data to account for control information. The UE may also perform multiplexing and puncturing for different types of control information.

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