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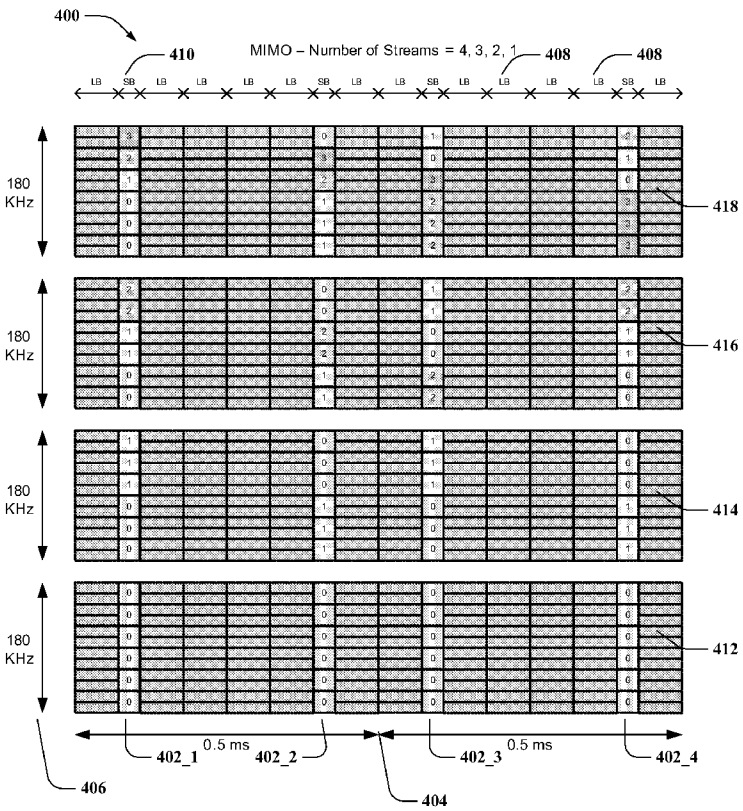
(54) Title: UPLINK PILOT MULTIPLEXING IN SU-MIMO AND SDMA FOR SC-FDMA SYSTEMS




(57) Abstract: Systems and methodologies are described that facilitate adaptive uplink pilot multiplexing schemes. In various embodiments, frequency position and pilot channel bandwidth can be adaptively varied in a block over time based on the uplink channel data, such as the number of streams to be multiplexed. Thus, the provided adaptive uplink pilot multiplexing schemes provide flexible uplink pilot allocation schemes while maintaining single carrier waveform for improved transmit power efficiency and orthogonality of pilots within blocks for improve channel estimation and suppression of interference.

WO 2008/045781 A1

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**Declarations under Rule 4.17:**

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— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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