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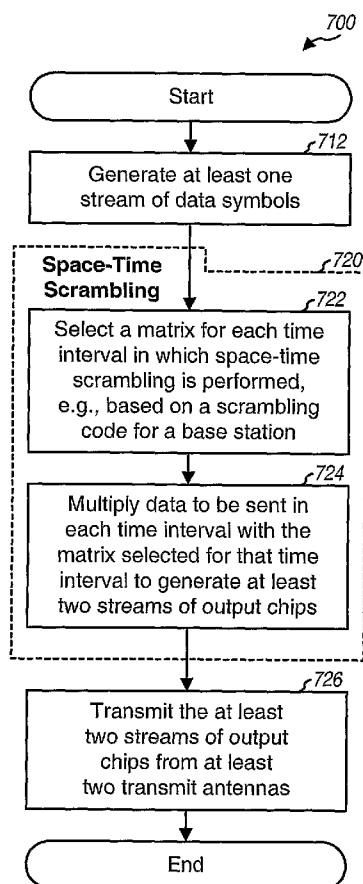
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(54) Title: SPACE-TIME SCRAMBLING FOR CELLULAR SYSTEMS



(57) Abstract: Techniques for transmitting data with space-time scrambling in cellular systems (e.g., CDMA systems) are described. At least one stream of data symbols is generated, mapped to one or more physical channels, and spread with channelization codes for the physical channels. Space-time scrambling is performed on the at least one stream of data symbols to generate at least two streams of output chips. The space-time scrambling may be achieved by performing matrix multiplication with a sequence of matrices. For each time interval in which space-time scrambling is performed, a matrix may be selected (e.g., based on a scrambling code for a base station), and data to be sent in the time interval is multiplied with the selected matrix. The matrices used for space-time scrambling may be defined and selected in various manners. The streams of output chips are processed and transmitted from respective transmit antennas.



RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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