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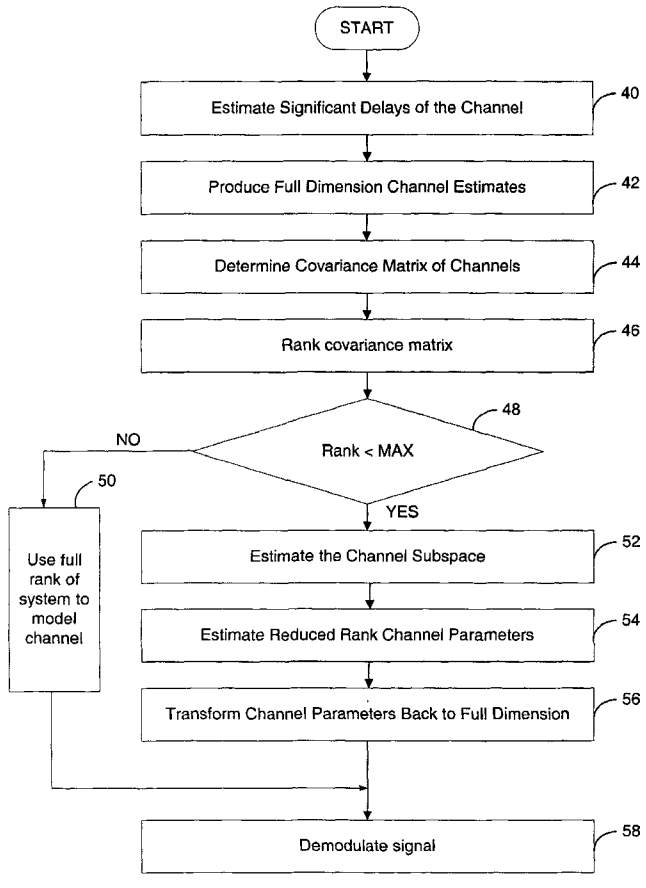
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(54) Title: METHOD AND APPARATUS FOR PRODUCING A CHANNEL ESTIMATE WITH REDUCED RANK



(57) Abstract: A method and apparatus for estimating a communication channel (14) in a wireless communication system (10) having multiple transmitter antennas (12) using reduced rank estimation. The method exploits redundant and/or *a priori* knowledge within a system to simplify the estimation calculations. Ine one embodiment, a covariance matrix is calculated (44) and analyzed (46) to determine if the channel parameters maybe reduced for channel estimation. If not, all parameters are used (50), otherwise a reduced rank matrix (54) is used for the calculation.

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