
Abstract: In this paper we propose a new space time transmit diversity (STTD) scheme for \( M (M \geq 4) \) transmit antennas and one receive antenna. The new diversity scheme belongs to the open loop class and consists of an extension to the work presented in [1,2,3]. The coding rate of the new scheme is one and in spite of the presence of inter-symbol interference it achieves, at least, the full diversity after applying a multi-dimensional orthonormal rotation to the original constellation. Each sequence with an integer multiple of \( M \) received