

Mário Marques da Silva, Américo Correia, "A Combined Precoding scheme with Selective Transmit Diversity" - International Conference on Telecommunications 2004 (ICT'04), Fortaleza, Brasil, August 2004;

Abstract: We propose the use of the precoding (PC) scheme, which can be used to combat both the Multiple Access Interference (MAI) and Inter-Path Interference (IPI), combined with the Selective Transmit Diversity (STD) for high data rate transmissions. The proposed scheme is considered over frequency selective Rayleigh fading channels jointly with a RAKE in the receiver. With the PC, the increase in performance is achieved with a small increase in power processing in the BS, avoiding any need to increase complexity in the Mobile Station (MS). It is shown that the use of the proposed PC scheme, alone or combined with the STD achieves a performance improvement over the corresponding schemes without PC.