
# ORTHOGONALIZATION OF QUASI−ORTHOGONAL SPACE−TIME BLOCK CODES IN MULTIPATH FADING ENVIRONMENTS BY USING FEEDBACK (WedAmOR2)

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**Abstract :**

To combat the detrimental effect of the frequency−selective fading channel and the intersymbol interference in quasi−orthogonal space−time block codes (QO−STBCs), two feedback algorithms combined with multicarrier modulation scheme are proposed. One of the algorithms rotates the phase of the transmitted signal from certain antennas in a prescribed way. The other algorithm is based on selecting certain antennas and switching−off the others according a channel quality measure. A highly practical setup with only two bits of feedback can achieve considerable performance gain over the open−loop QO−STBC.

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