MULTIPATH CHANNEL ESTIMATION VIA THE MPM ALGORITHM (TueAmPO2)

Author(s) :

Olivier Rabaste (ENST Bretagne, France)
Thierry Chonavel (ENST Bretagne, France)

Abstract :

In this paper, we consider the problem of multipath channel estimation from data observed at the receiver matched filter output. An approach based on the MPM algorithm is proposed in the literature assuming white noise at the output of the matched filter. We present an improvement to this method that takes into account the noise correlation involved by the matched filtering. Results obtained under both the white−noise and the correlated noise hypotheses are compared, showing that the latter approach performs significantly better in terms of false−alarm and paths detection probabilities, as well as in terms of mean quadratic error on the estimation of amplitudes and delays. Simulations examples are proposed.

Menu