ABSTRACT

A METHOD OF WIDELY LINEAR TURBO-EQUALIZATION IN A MULTI-USER CONTEXT AND FOR A MULTI-CHANNEL MULTI-ANTENNA RECEIVER

A method of equalizing a signal received by a plurality of antenna elements, said received signal being produced by the transmission of signals by a plurality of transmitters, said method including:

- a step of converting the received signal into the frequency domain,
- a step ($203_{k,m}$) of subtracting from said signal an estimate of the intersymbol interference and the interference between users so as to obtain a complex corrective signal,
- a step ($204_{k,m}$, 201) of conjoint widely linear filtering of said complex corrective signal and the conjugate complex corrective signal to obtain an equalized signal,
- a step of converting the equalized corrective signal into the time domain,
- a step (101) of calculating coefficients of said at least one equalizer filter from the covariance matrix and the pseudo-covariance matrix of the received signal.

Figure 5