

Iterative Receiver Design

MATLAB code samples

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1 Introduction

These folders contain MATLAB demonstrations of some of the algorithm in the book *Iterative Receiver Design*. The source code comes without any warranty and can be modified freely, as long as the headers of the files are kept, acknowledging the origin of these files. The source code is not optimized in any way, and may not be suitable for extensive simulations.

Updates

- Jan 22 2008: error in MIMO_equalize.m, line 63. Now corrected to `covariance_without_l=diag(a_priori_covariance);`

2 The different folders

BICMID

- **Description:** A convolutional code followed by bit-interleaved coded modulation
- **Main file:** BICMID.m

MIMO

- **Description:** A multi-antenna system, with bit-interleaved coded modulation and convolutional coding.
- **Main file:** MIMO.m

DispersiveChannel

- **Description:** A forward-backward equalizer for dispersive channels
- **Main file:** DispersiveChannel.m

TURBO

- **Description:** A turbo code with BPSK modulation
- **Main file:** TURBO.m

Common

- **Description:** a set of common MATLAB files