# Burst erasure correction using LDPC codes constructed on base matrices generated by matched groups, nested polygons and superposed circulant matrices [

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text (article)

Analítica

This article proposes procedures for the construction of base matrices grounded in algebra and geometry. These base matrices serve as a platform to generate the parity check matrices for debugging in bursts erasure through LDPC codes by superposing the base matrices and movements of circulant matrices. The construction of the matrices is performed by concatenation as it is easy to implement and has a lower randomness. To demonstrate the potential of the technique, we developed a number of simulations using low complexity encoding as well as the sum-product algorithm. Several LDPC codes (matrices) were generated and the results were compared with other approaches. We also present the outcomes of erasure recovery simulations that result from the transmission of an image through a noisy channel

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