USING of POLAR CODES in STEGANOGRAPHY

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Abstract—**In this paper, we propose a new steganography scheme based on the polar codes. The scheme works according to two steps. The first offers a stego vector from given cover vector and message. The stego vector provided by the first method can be the optimal; in this case, the insertion is successful with a very low complexity. Otherwise, we formalize our problem in a linear program form with initial solution the stego vector given by the first method, to converge to the optimal solution. Our scheme works with the case of a constant profile as well with any profile; it is then adapted to the case of wet paper. Tests of the scheme on multiple images in grey scale have showed its good performance in terms of minimizing the embedding impact.**

Keywords— **linear programming, matrix embedding, polar codes, steganography, wet paper codes.**

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