Adaptive Pairing Reversible Watermarking

This letter revisits the pairwise reversible watermarking scheme of Ou et al., 2013. An adaptive pixel pairing that considers only pixels with similar prediction errors is introduced. This adaptive approach provides an increased number of pixel pairs where both pixels are embedded and decreases the number of shifted pixels. The adaptive pairwise reversible watermarking outperforms the state-of-the-art low embedding bit-rate schemes proposed so far.