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Volume 89, Issue 4, April 2009, Pages 675-679

Fast communication

Fragile watermarking scheme using a hierarchical mechanism

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<https://doi.org/10.1016/j.sigpro.2008.10.001>

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Abstract

This paper proposes a novel fragile watermarking scheme with a hierarchical mechanism, in which pixel-derived and block-derived watermark data are carried by the least significant bits of all pixels. On the receiver side, after identifying the blocks containing tampered content, the watermark data hidden in the rest blocks are exploited to exactly locate the tampered pixels. Moreover, using exhaustive attempts, the proposed scheme is capable of recovering the original watermarked version without any error.



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Keywords

Fragile watermarking; Tampered-pixel localization; Image restoration

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