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论文

基于置乱变换的DCT域数字水印改进算法

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摘要：

提出一种符合Kerckhoff原则的DCT域数字水印算法.该算法在嵌入水印前对水印进行Arnold变化,并通过密钥向量嵌入水印图像,大大提高了水印的鲁棒性和安全性.对比实验表明,该方案对高斯低通滤波、添加白噪声、JPEG压缩、图像剪切等攻击手段有较好的鲁棒性,并具有较高的安全性.

关键词： Arnold变换　离散余弦变换　Kerckhoff原则　数字水印

A DCT domain watermarking algorithm based on scrambling transforming

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Abstract:

We propose a DCT domain watermarking algorithm, which is consistent with Kerckhoff principle.This algorithm transforms the watermark image before the watermark embedding and embeds watermark images by key vector, which improves the robustness and security greatly. The experiments indicate that the program has a better robustness on Gaussian low-pass filtering, white noise, JPEG compression, image shearing, and other kinds of attack and a better security.

Keywords: Arnold transform　discrete cosine transform　Kerckhoff principle　digital watermarking

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