

# An Improved CRT-based Watermarking Scheme with Voting Strategy

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**Abstract.** The watermarking technique is often used to protect the copyright of multimedia transferred over the Internet. To reduce the bandwidth consumption, most of the media or images need to be compressed before the transmission. Thus, the robustness against JPEG compression is one of the most important criteria in the watermarking issue. According to the Chinese Remainder Theorem, Patra et al. have provided an effective watermarking mechanism concerning this essential in 2010. In this article, we aim to propose an improvement on their mechanism by introducing the voting strategy. Experimental results show that the improved version outperforms related works in terms of Tamper Assessment Function (TAF) value and image quality under different attacks.

**Keywords:** Chinese remainder theorem, image watermarking, JPEG compression

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