Fast Forgery Detection with the Intrinsic Resampling Properties

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Abstract

With the rapid progress of the image editing software, the image forgery can leave no visual clues on the tampered regions and makes us unable to judge the image authenticity. In general, the digital image forgery often utilizes the scaling, rotation or skewing operations in which the resampling and interpolation processes are demanded. By observing the detectable periodic properties introduced from the resampling and interpolation processes, we propose a novel method based on the intrinsic properties of resampling scheme to detect the tampered regions with the pre-calculated resampling weighting table and the periodic properties of prediction error distribution. The experimental results show that the proposed method outperforms the conventional methods in terms of efficiency and accuracy.

Keyword：image forgery, resampling, forgery detection, intrinsic resampling properties.