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RESTORATION FOR WEAKLY BLURRED AND STRONGLY NOISY IMAGES ON THE BASIS OF NONHARMONIC ANALYSIS

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ABSTRACT

The restoration of images by nonharmonic analysis (NHA) algorithm is an active field of research and such algorithms are, in fact, now widely used. Conventional methods usually apply cannot handle strong noise well due to the inherent contradiction between sharpening and de-noising. To solve this issue here, we propose a NHA method to overcome this limitation by using signal prediction based on the NHA method proposed. In this paper we present NHA analysis algorithm for restoration of a picture which has been corrupted by mild blur, and strong noise. Experiments illustrate that compared with other sharpening approaches; our method can produce state of the art results under practical imaging conditions.

KEYWORDS: De-Noising, Signal Prediction, Nonharmonic, Sharpening