Isometric Process Behavior in Fractal Color Image Compression by Zero-Mean Method

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Abstract: In this paper study the effect of isometric process on the compression parameters of the fractal color image compression by zero-mean. Two kinds of tests have been conducted. The first all kind of the symmetry operations [0-7] were taken; while the second tests were concentrated on studying the effect of the following parameters BlockSize, StepSize, DomSize on the probability distribution of symmetry operation. The results show that the highest value of PSNR at even symmetry and the lowest value of ET at odd symmetry but CR is not affected with symmetry process. Also the occurrence probability of even symmetry is more than odd symmetry for all compression parameters in all (Y,U,V) components. This behaviour is utilized to reducing encoding time to 50%.

Keywords Image Compression, Zero-Mean, Fractal Image Compression, Isometric Processes