

Abstract

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A Fast Fractal Image Coding Approach Employing Fuzzy Aggregation of Domain Blocks

fractal image compression is a class of image compression techniques that offer the advantages of high compression ratio and fast decoding. but the major obstacle of these techniques is the relatively long time needed for encoding the image due to the requirement of search for the best fitting domain block for each range block. various methods have been suggested to overcome this problem without much loss of image quality. in this paper, such methods are reviewed and a coding scheme is suggested in which multiple domain blocks are used to approximate each range block. these domain blocks are around the range block hence a reduction in search-overhead is achieved in the encoding process. a comparative study between our approach and other fractal coding techniques is also presented.