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Fractal Image Compression Techniques

Genetic Algorithm and Efficient Domain Pool
Algorithm for Fractal Image Compression

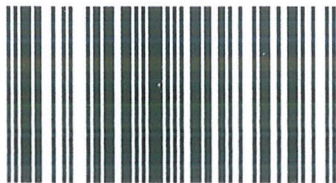
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Fractal Image compression is one of the newer ways of squeezing an image file by systematically analyzing it and saving a smaller set of instruction instead of a description of every pixel that can be used to precisely reconstruct it. The Technique used in this book utilizes the Genetic Algorithm, which greatly decreases the search space for finding the self similarities in the given image. The Domain pool design is one of the dominant issues, which affect coding performance of fractal image compression. In this book, a block-averaging method is used to design an efficient domain pool, which produces high quality image after compression and decompression. The Genetic Algorithm reduces the time complexity irrespective of image quality and Efficient Domain pool attains high quality image. Generally when image compression is carried out, the factors such as size of image, compression ratio, quality and time are considered. The work in this book concentrates on reducing time complexity involved during fractal image compression and also on obtaining high quality compressed images.



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The Author is working as Lecturer in Information Technology in Avinashilingam University, Coimbatore, India and has Eleven years of teaching experience. Her research interests are Biometrics and Image processing. She has more than 15 publications at International level and has presented many papers in International and National conferences.



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