

# Image Processing Optimization by Genetic Algorithm With a New Coding Scheme

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*Abstract* — An original coding scheme is introduced to take advantage of the two-dimensional structural information of images within the genetic algorithm framework. Results are presented showing that this new technique outperforms classical optimization methods for the optimization of  $32 \times 32$  and  $128 \times 128$  holograms.

*Keywords* — Optimization; Genetic algorithm; Image processing.

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