Comparative analysis of function approximation methods in image processing tasks

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Abstract

The paper considers various nonlinear methods of multivariate regression approximation (neural networks, linear parameter functions, hierarchical approximation) as applied to image filtering problems based on a priori information in the form of a pair of images (“ideal” + “distorted”). The considered approximation methods are compared in terms of efficiency.

Keywords: image processing, nonlinear method, neural network, linear parameter function, hierarchical approximation.

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