

# Comprehensive approach to the choice of compression and error-control coding algorithms for digital image transmission through communication channels

N.I. Glumov<sup>1</sup>

<sup>1</sup>Image Processing Systems Institute of RAS

## *Abstract*

The paper considers the problem of choosing the algorithms for compression and noiseless coding to transmit digital images over communication channels. The quality criteria for the output images are considered and a procedure for simulation of failures in the communication channel is proposed. The possibility of a significant increase in the noise immunity of compressed images is exemplified by the compression method based on hierarchical grid interpolation.

*Keywords:* digital image, communication channel, error-control, coding, algorithm compression, noiseless coding, grid interpolation.

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