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Effects of image compression on digital specklegrams

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Abstract

In order to solve storage problem in real-time optical metrology, storing digital specklegrams by using a lossy-joint photographic experts group image compression is studied. A spatial distribution of a correlation signal calculated from the compressed specklegrams is used as a criterion for evaluating quality of information content of the specklegrams. The results show that high quality of displacement information is retrievable from the compressed specklegrams. © 2002 Elsevier Science Ltd. All rights reserved.
