Partially coherent light from multimode fiber

Excitation of a multimode fiber with a focused spatially coherent light of finite bandwidth results in a partially coherent light at the output of the fiber. Here we study the properties of speckle and classical ...

A model for the spatial coherence function of a partially coherent light produced at the output of a step-index multimode fiber excited with a spatially coherent broadband source is developed.

Here, we present a universal method to analyze, process, and generate spatially partially coherent light in multimode systems by using self-configuring optical networks. Our method relies on ...

Partially spatio-temporally coherent light from multimode fibers (MMFs) offers critical advantages for optical potential projection in ultracold-atom experiments.

This work paves the way for control and manipulation of the spatial coherence of light in a multimode fiber varying from partially coherent or totally incoherent light.

In this paper an optical structure which takes advantage of the inter-mode dispersion of multimode fiber is proposed to produce a synthetic partly coherent light source. The principle is analyzed and a ...

We study the spatially incoherent light generated by a multimode fiber (MMF) in the application of image projection designed for the ultracold-atom experiments.

Spatial coherence properties of light at the output of a step-index multimode fiber excited with a spatially coherent broadband source are described. Their rela

Multimode fibers (MMF) have many applications in illumination, spectroscopy, sensing and even in optical communication systems. In this work, we present a model for the MMF output ...

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