

# EXAMINATION OF DISTORTION EFFECT ON MODE LASER BEAMS PROPERTIES

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Self-reproducing Gauss-Laguerre, Gauss-Hermite and Bessel mode beams and their possibility for reconstruction after obstacle (opaque or transparent with refractive index  $n = 1,5$ ) distortion are considered in that paper. Optically trapped particle as an obstacle is regarded. A comparative analysis of Gauss-Laguerre, Gauss-Hermite and Bessel modes and superposition beams capacity for reconstruction is conducted.

*Gauss-Laguerre, Gauss-Hermite and Bessel mode beams, optical manipulation, obstacle distortion, self-reproducing, reconstruction*

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