

ALIVE OPTICAL  
VORTICES: PHASE DISLOCATIONS  
IN DYNAMIC RANDOM LIGHT FIELDS

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S u m m a r y

This article deals with the space-time dynamics of phase dislocations in a nonstationary generic scalar random light field which has not been studied yet. We investigate experimentally the light field that appears as a result of the photoinduced light scattering in LiNbO<sub>3</sub>:Fe crystal. The elaborated original method of phase reconstruction makes it possible to observe all stages of wave front transformations during the optical vortices evolution, including their nucleation and annihilation. These processes are described correctly by a suggested mathematical model for a moving phase dislocation curve.