

# **SIMULATION OF THE EFFECTS OF PHASE AND AMPLITUDE COATINGS OF LENS APERTURE USING A RETARDER AS A ZONAL MASK**

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*Modification of imaging properties of lens using phase and amplitude coatings on the lens aperture is well known. The fact that the use of polarization masks on lens aperture also modifies the imaging properties of a lens is pretty well established. Seidel aberrations of a lens can also be reduced by using proper zonal polarization masks. In this paper we have studied the effects of a retarder used as a zonal mask on the aperture of a diffraction-limited lens on its imaging properties. It is shown that changes in the retardance and the orientation of the retarder can simulate the effects of phase and amplitude coatings on the lens aperture on the imaging characteristics of the lens.*