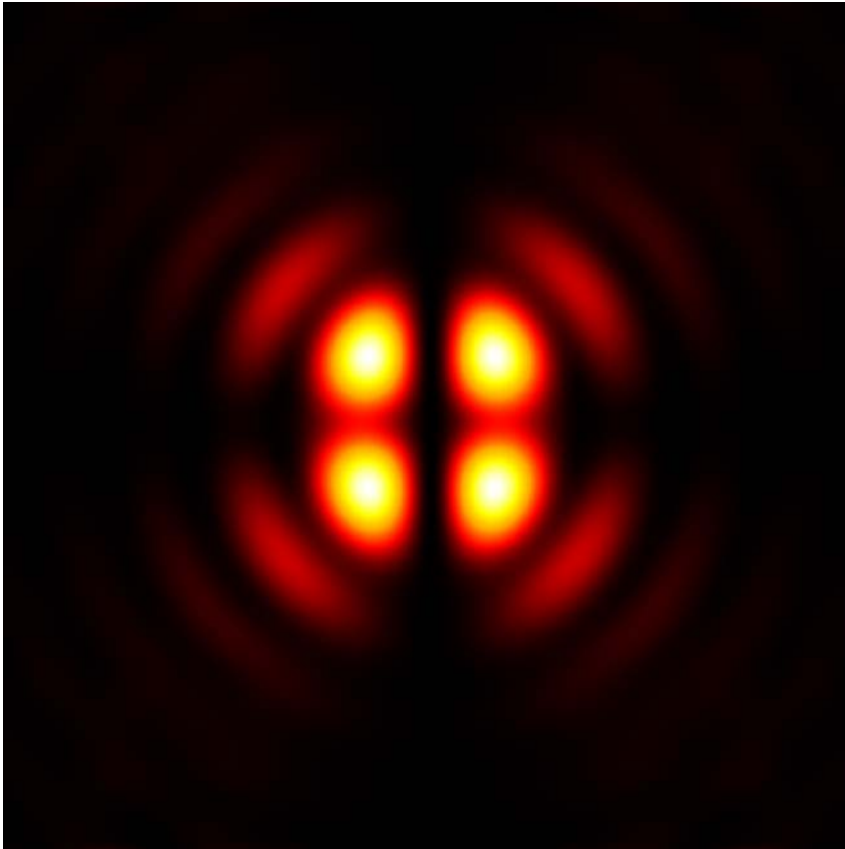


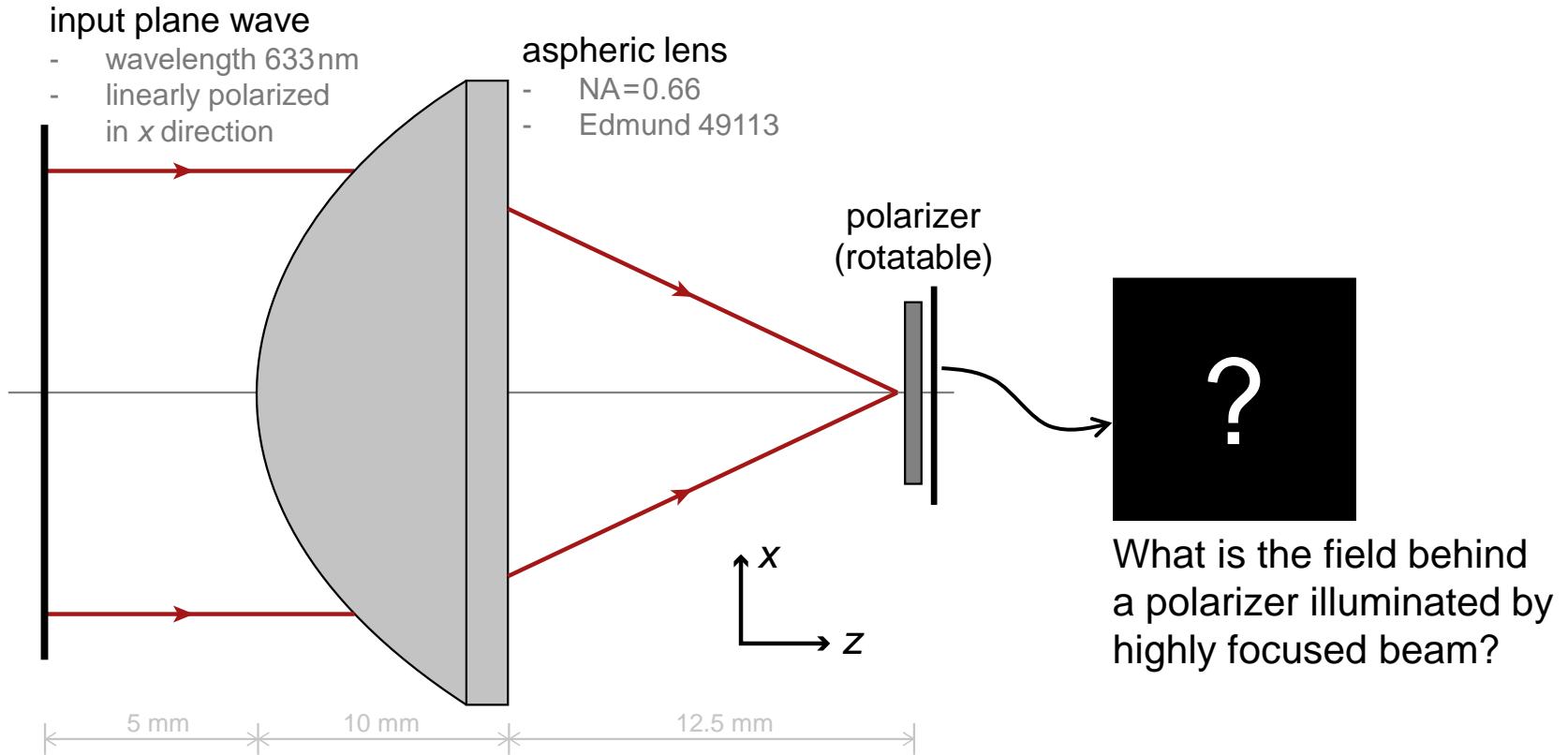
Polarizer in Focal Region

Abstract

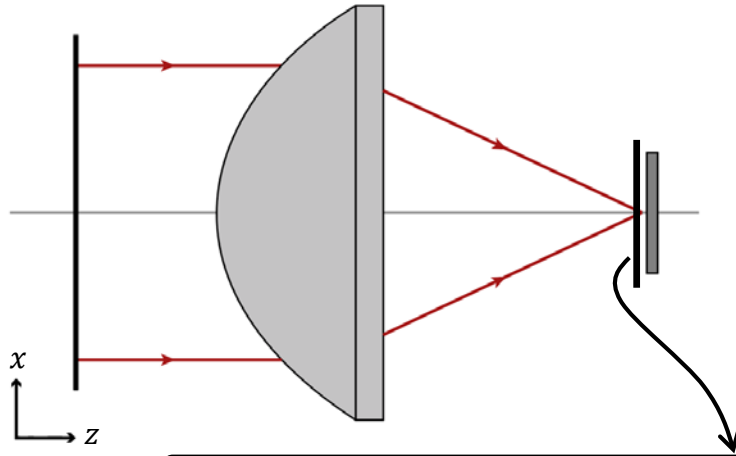


For a linearly polarized light, if a polarizer is placed orthogonally with the polarization of the input light, it is supposed to block the light. This is true only for the case of normal incidence, but not for non-paraxial cases. To model such effects, an idealized polarizer model for non-paraxial case is implemented. As an example, the field behind a rotatable polarizer in the focal region of a high-NA focusing lens is analyzed.

Modeling Task

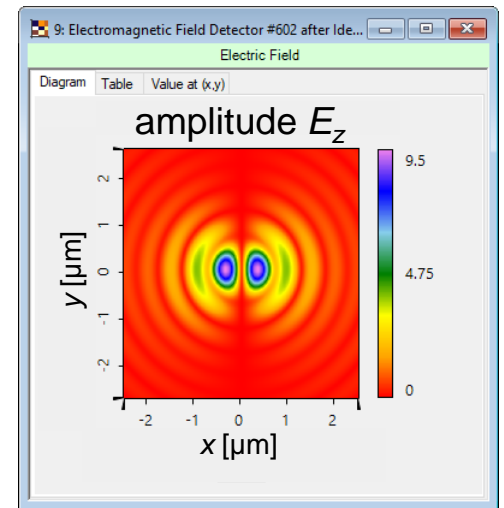
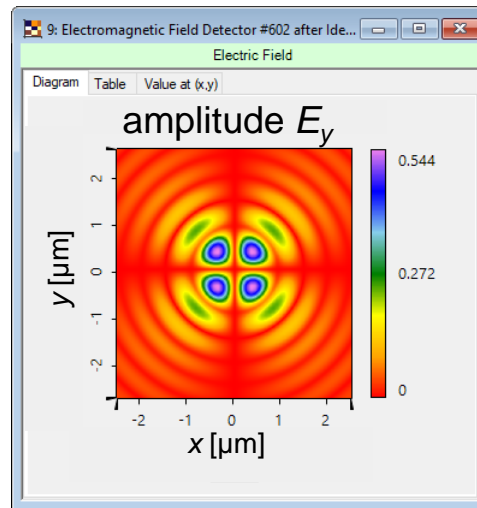
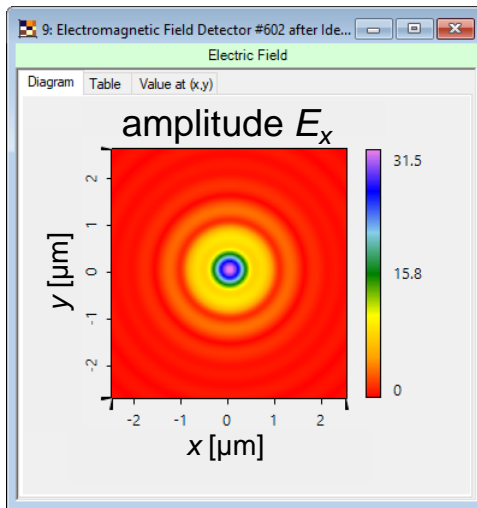


Results

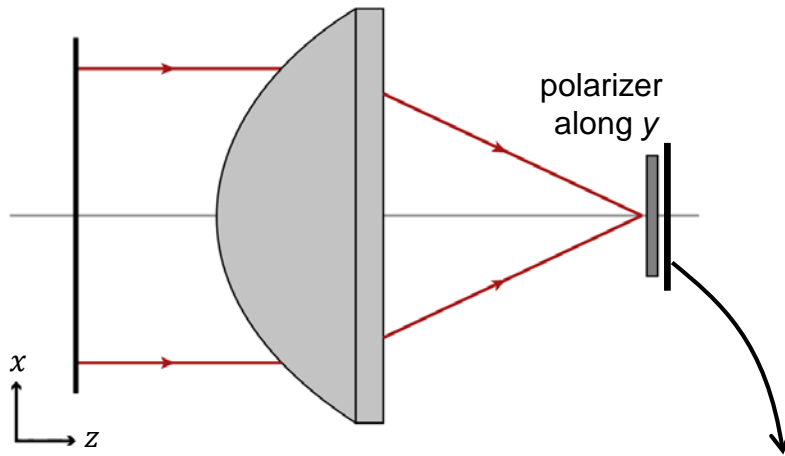


Fully vectorial simulation of light propagation through high-NA lens takes only 4 seconds!

field in focal plane, *in front of* the polarizer



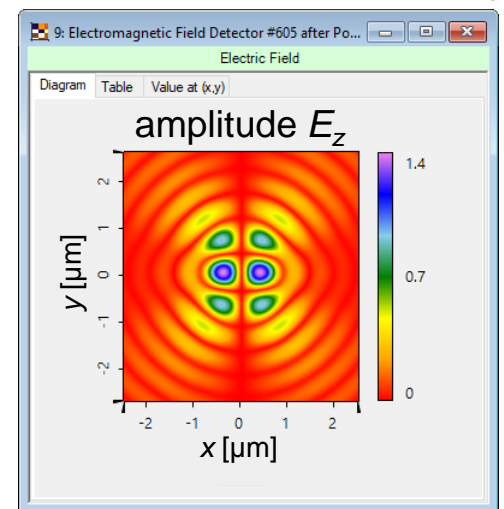
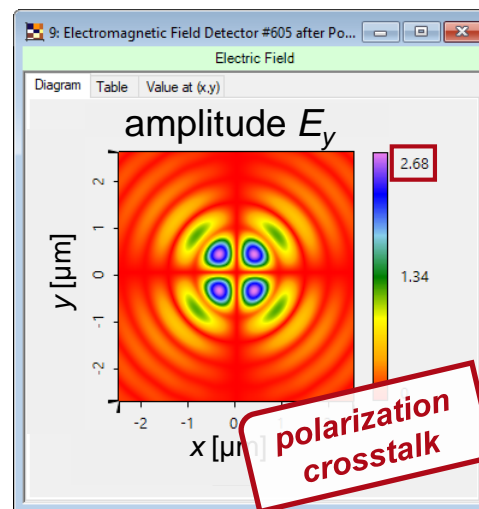
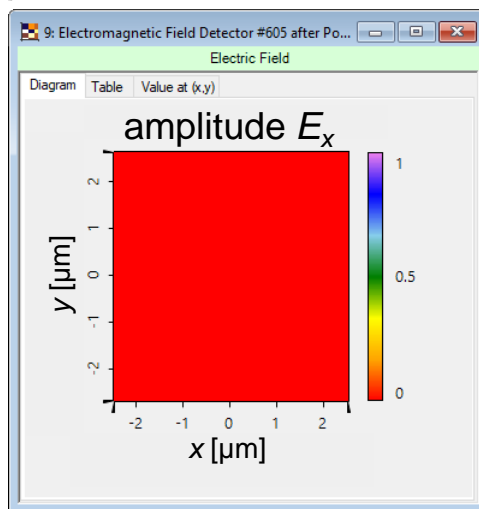
Results



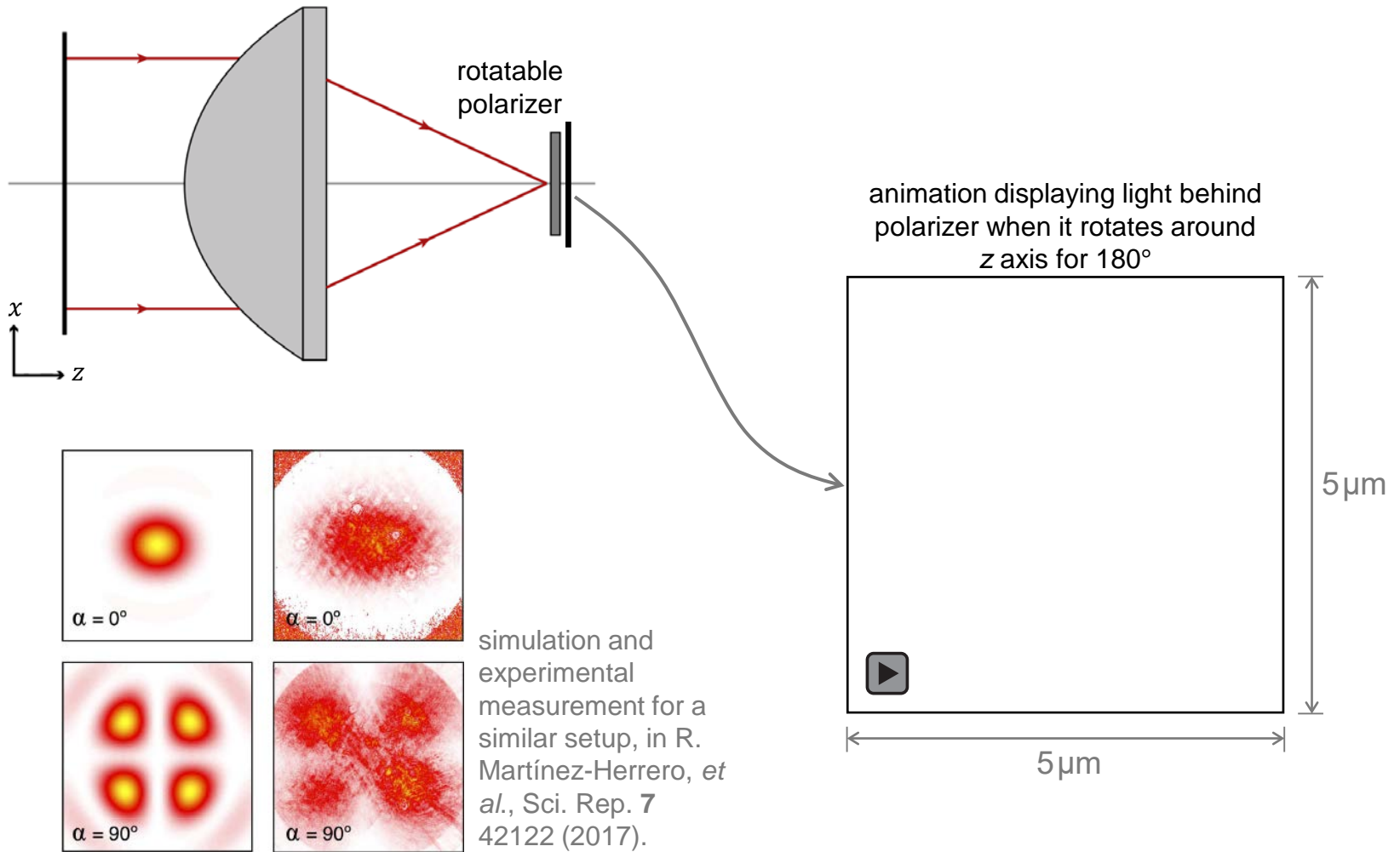
Idealized polarizer model takes the polarization crosstalk effects into account for non-paraxial cases.

[S. Zhang, *et al.*, "A non-paraxial idealized polarizer model," prepared for submission]

field in focal plane, **behind** the polarizer (y)



Results



Document Information

title	Polarizer in Focal Region
version	1.0
VL version used for simulations	7.0.3.4
category	Technology Use Case
