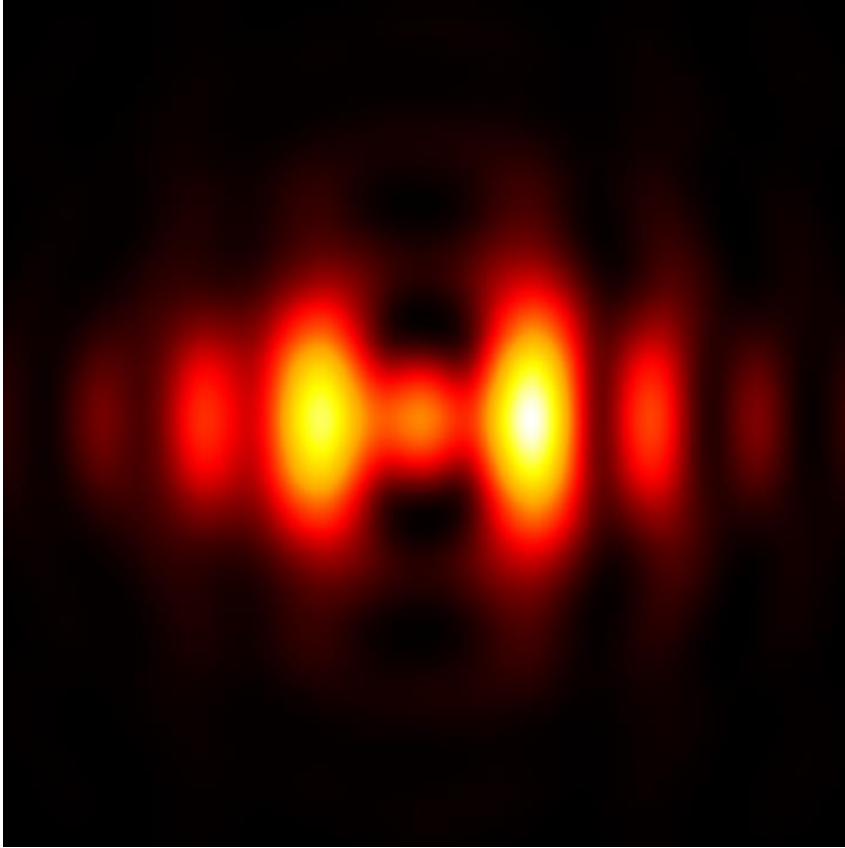


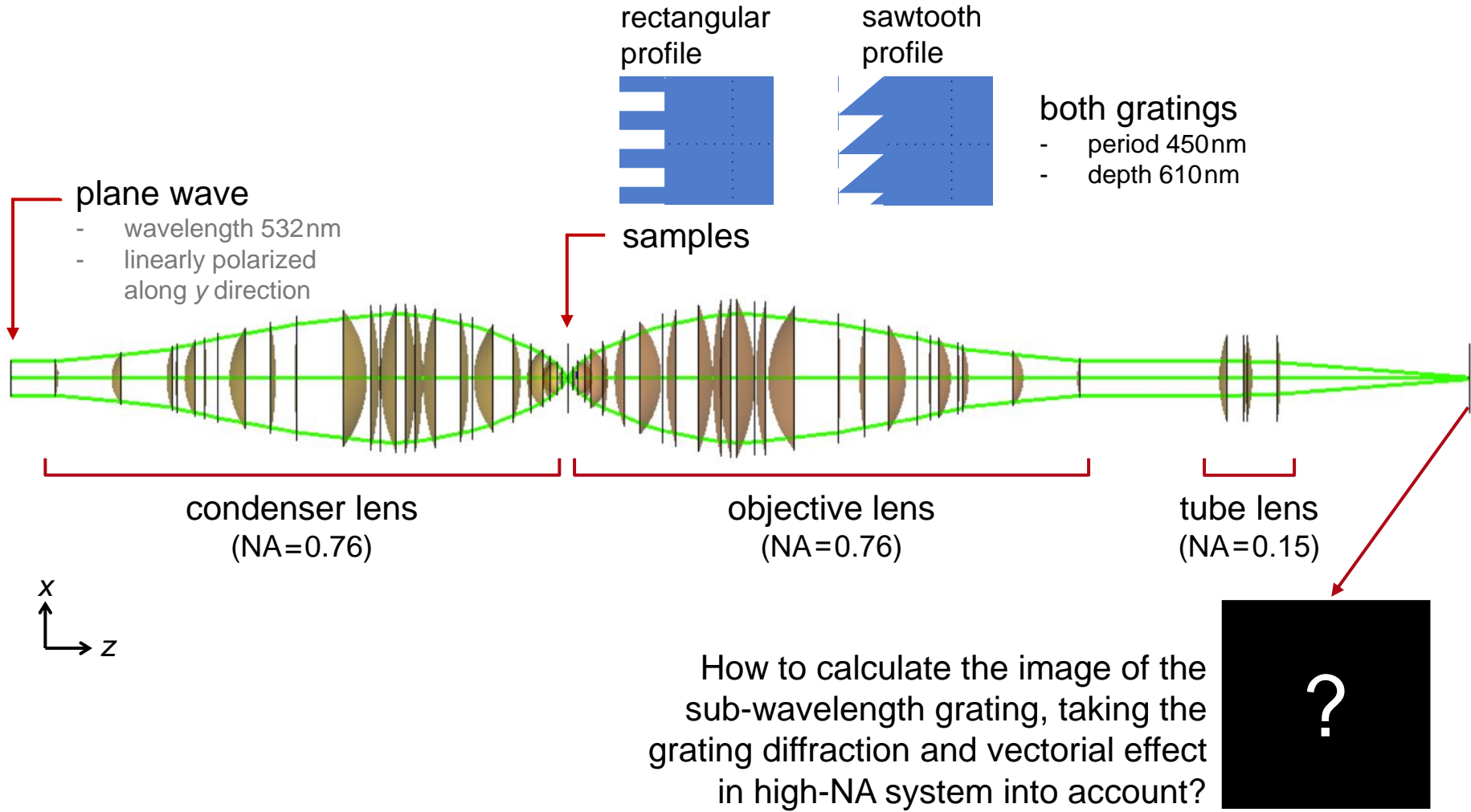
Imaging of Sub-Wavelength Gratings with Different Profiles

Abstract

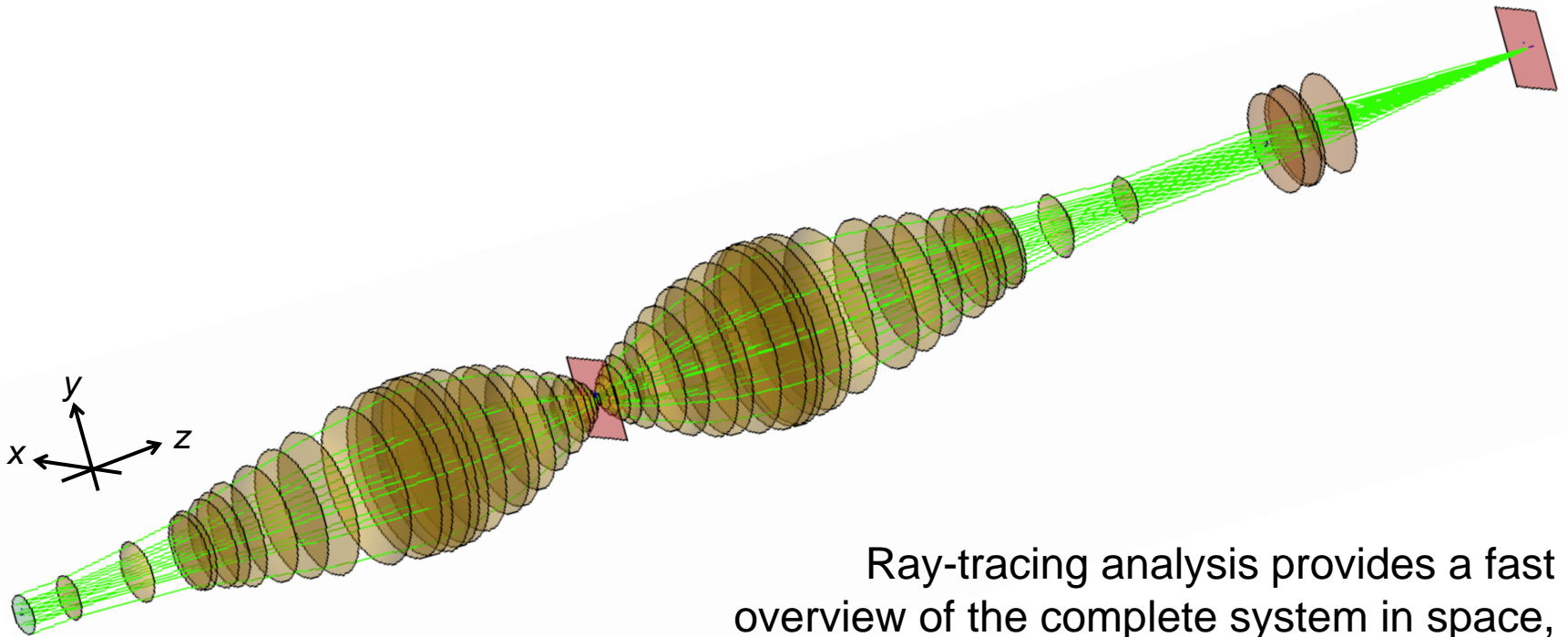


Sub-wavelength gratings, when illuminated with paraxial light, generate only one diffraction order, and therefore no image is formed in this situation. To overcome it, non-paraxial illumination can be used. As in this example, a high-NA condenser lens is employed to provide a highly focused illumination for gratings with different profiles, and the diffracted field is to be collected by another high-NA objective. VirtualLab enables simulation of such an imaging process, including rigorous simulation of sub-wavelength gratings with Fourier modal method.

Modeling Task

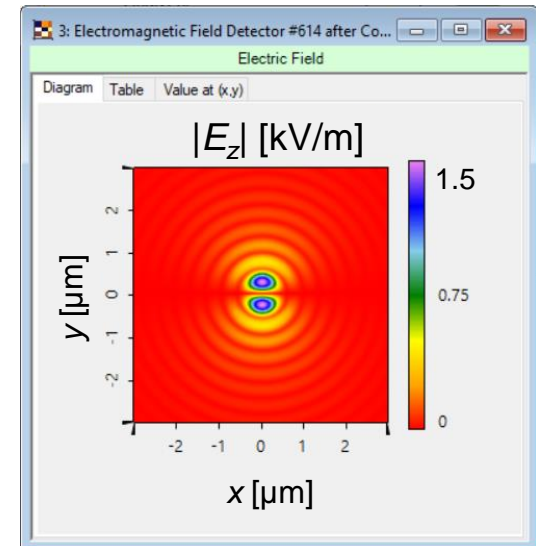
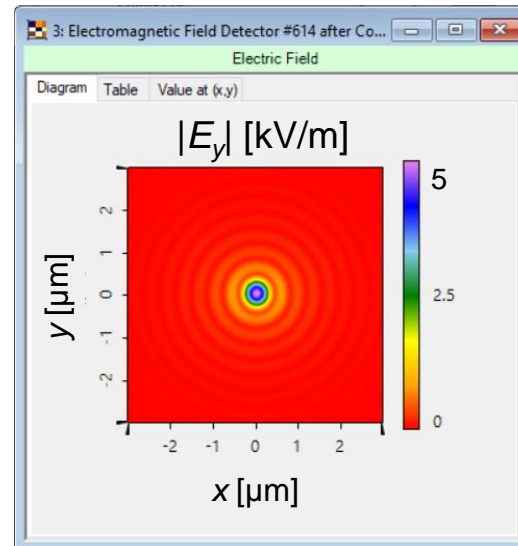
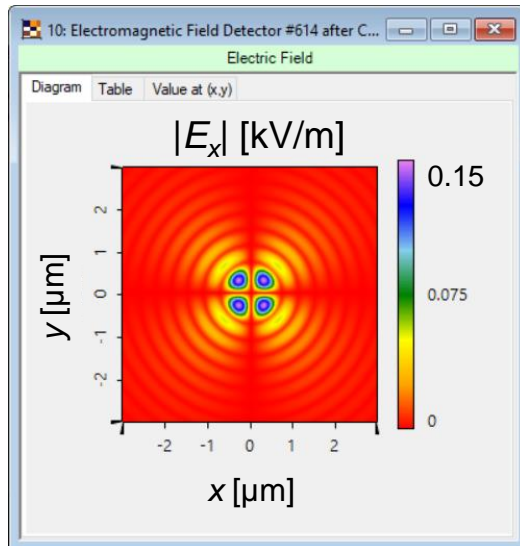
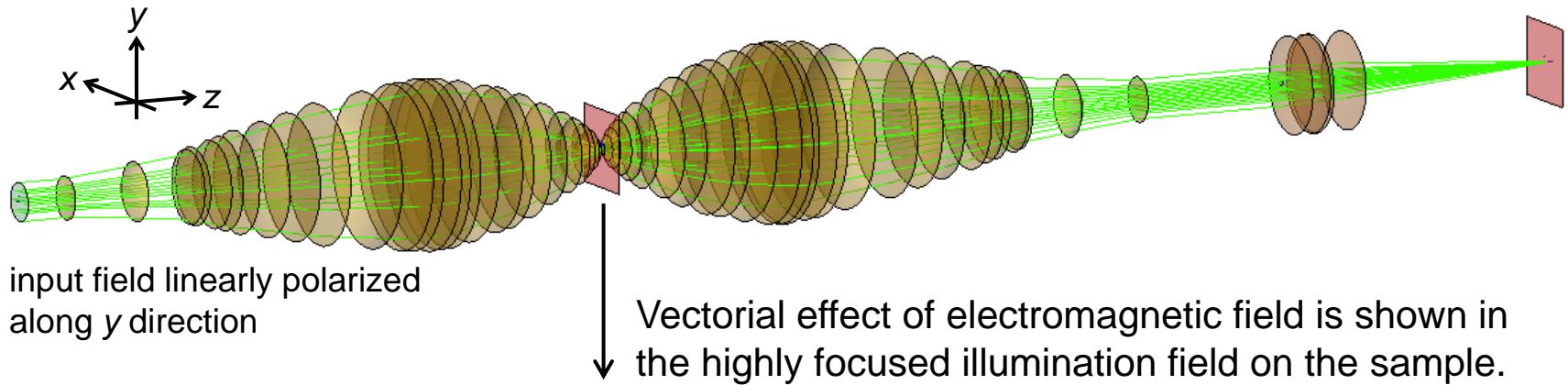


Results

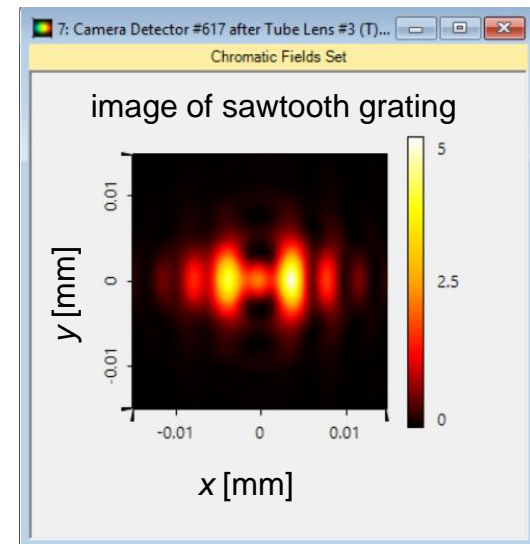
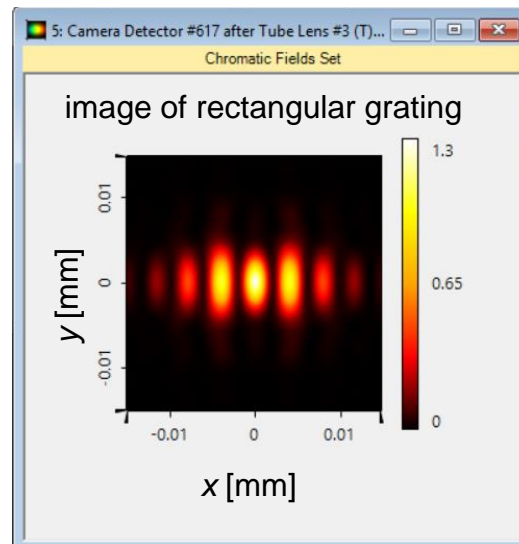
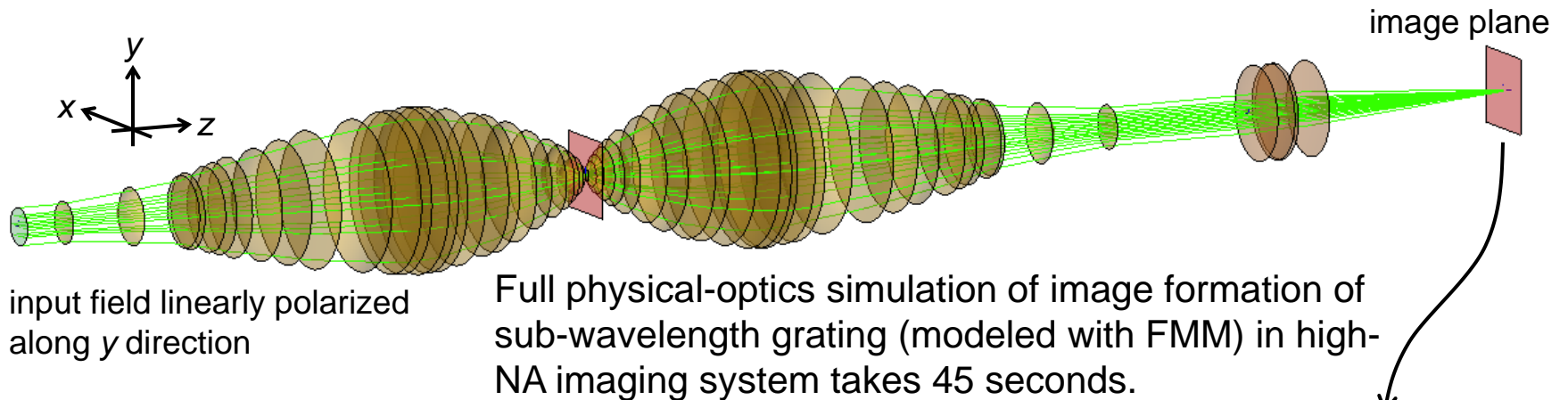


Ray-tracing analysis provides a fast overview of the complete system in space, including multiple diffraction orders.

Results



Results



Document Information

title	Imaging of Sub-Wavelength Gratings with Different Profiles
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VL version used for simulations	7.3.0.41
category	Application Use Case
