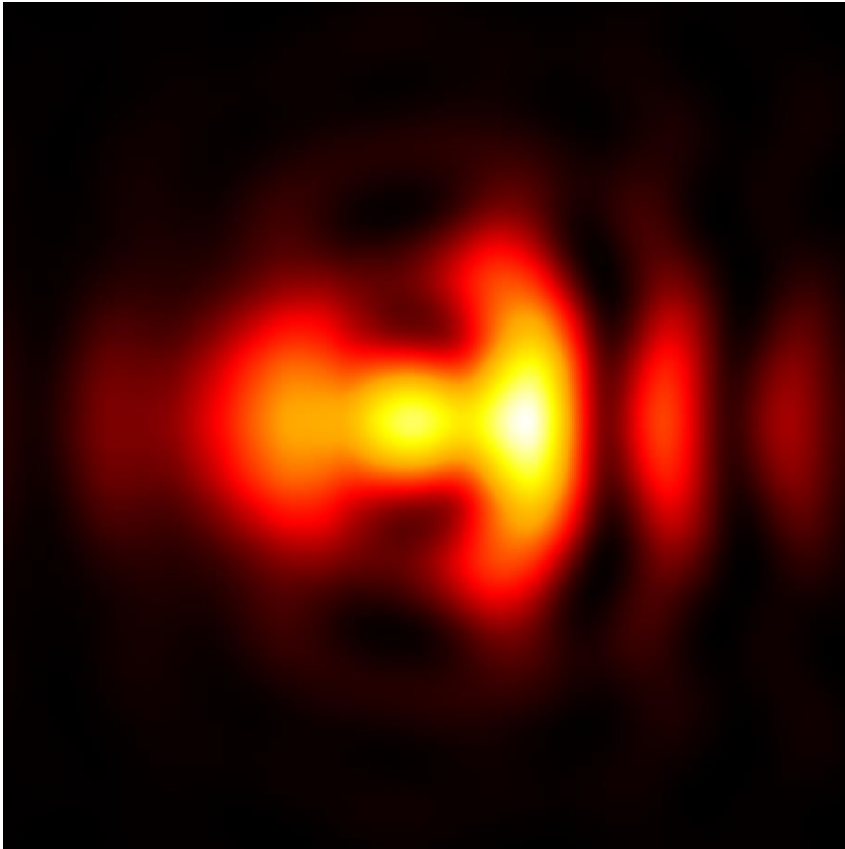


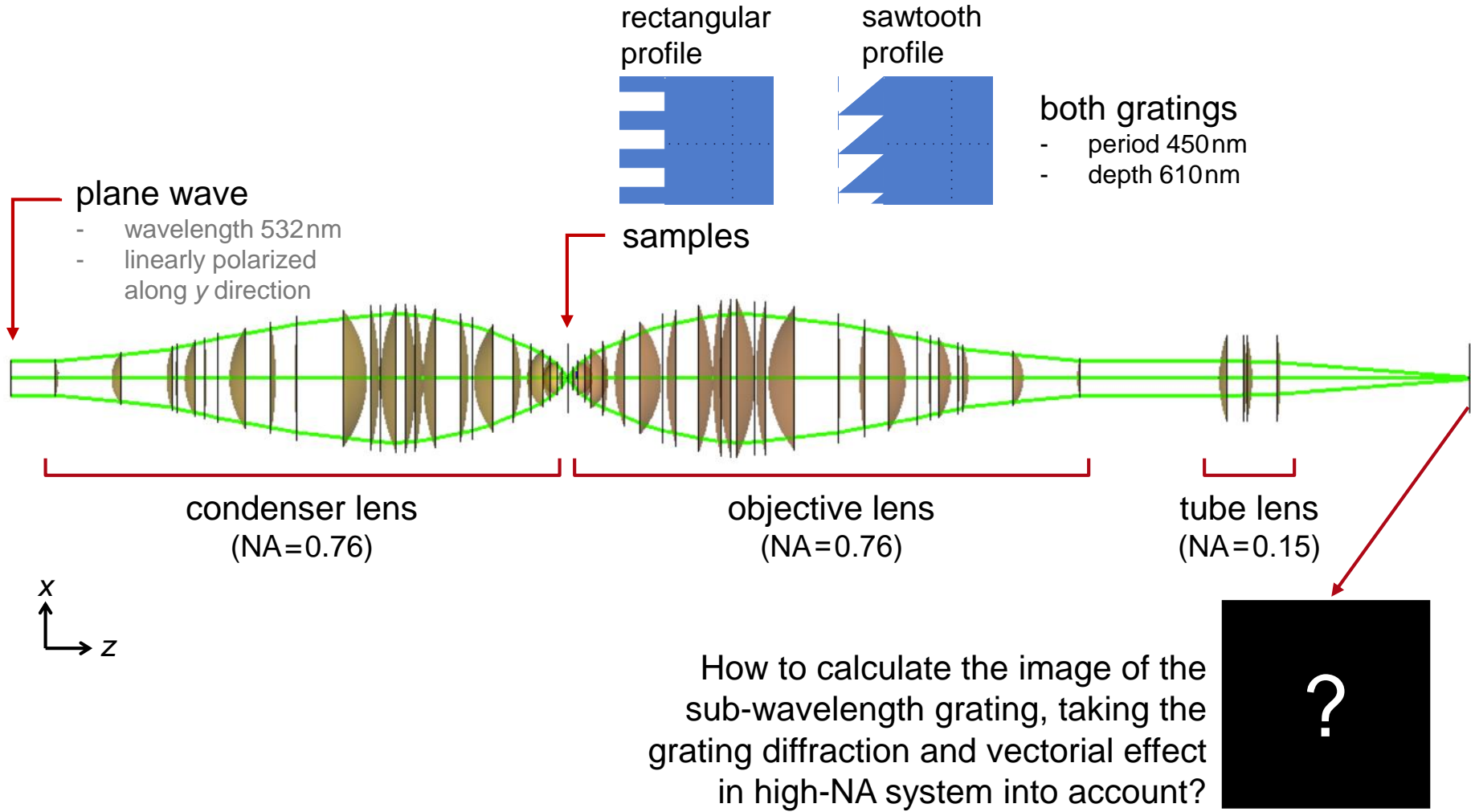
Imaging of Sub-Wavelength Gratings with Different Profiles

Abstract

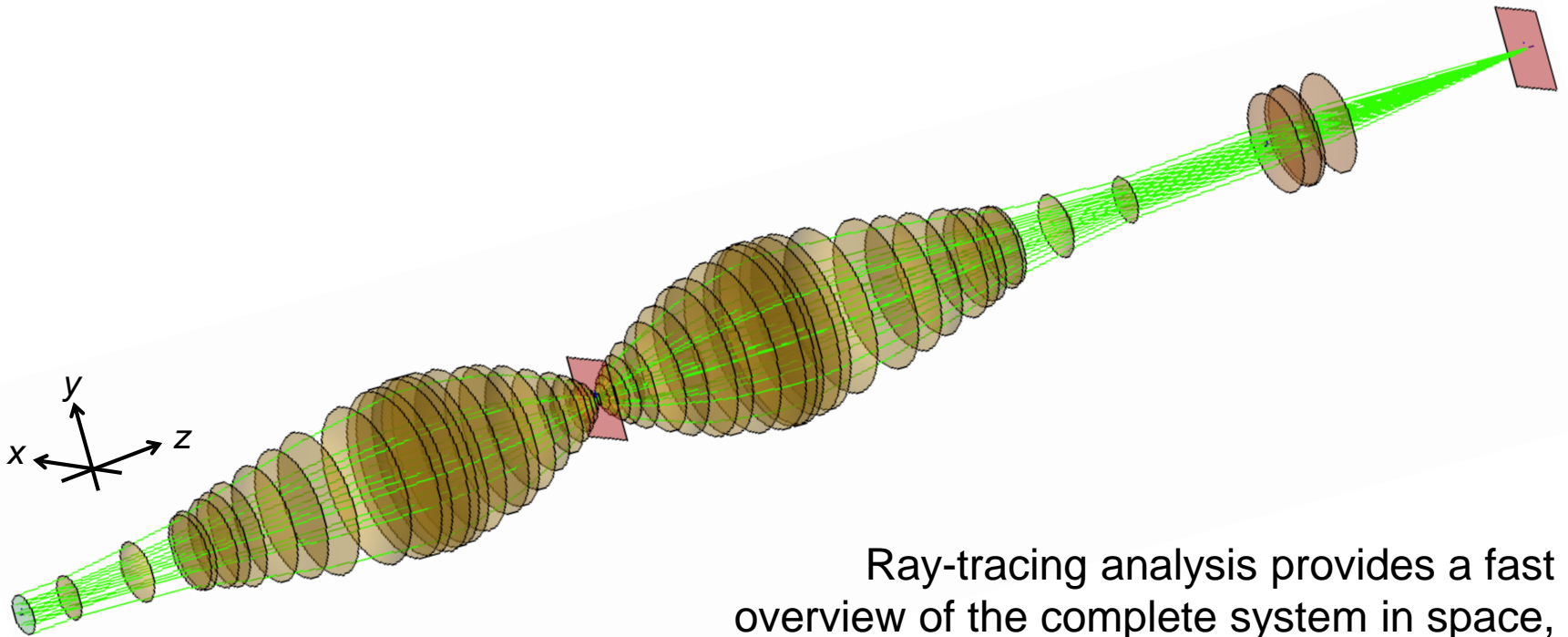


Sub-wavelength gratings, when illuminated with paraxial light, generate only one diffraction order, and therefore no image is formed in this situation. To overcome it, non-paraxial illumination can be used. As in this example, a high-NA condenser lens is employed to provide a highly focused illumination 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

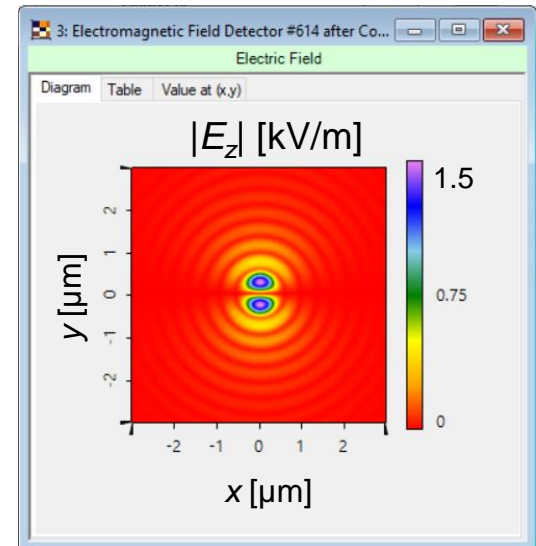
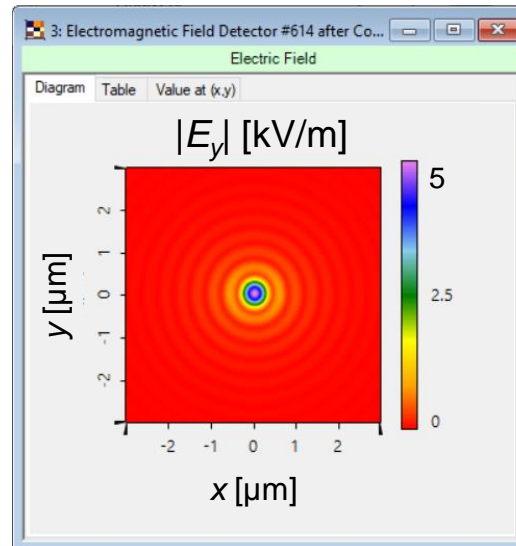
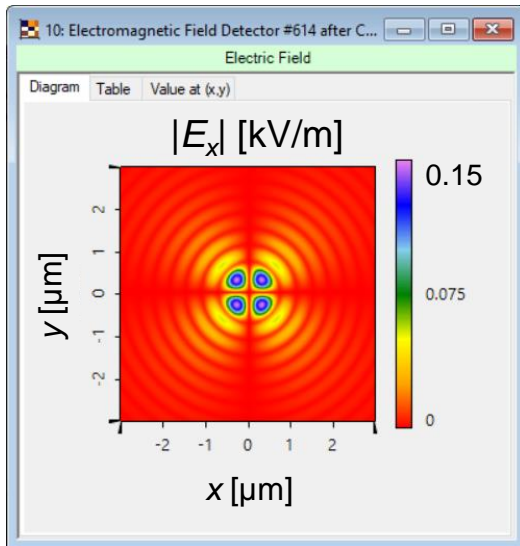
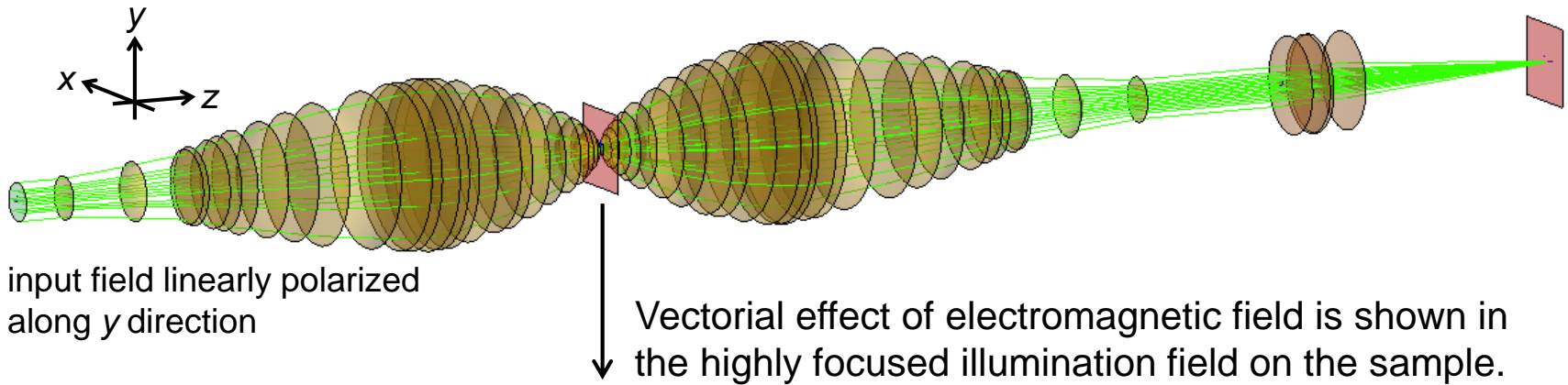


Ray-Tracing System Analysis

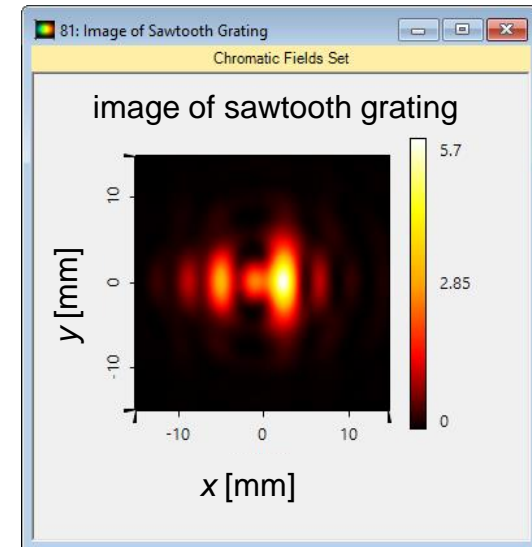
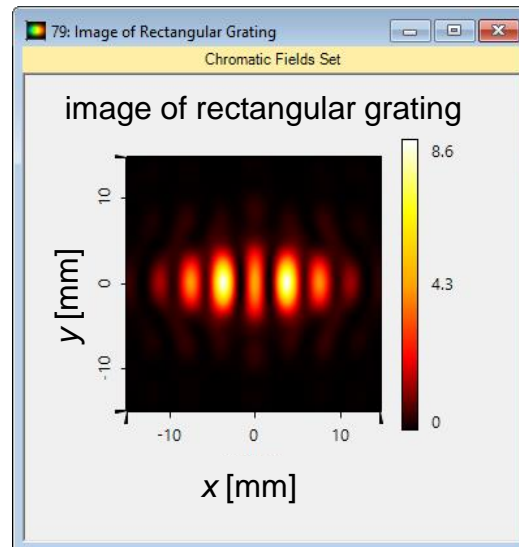
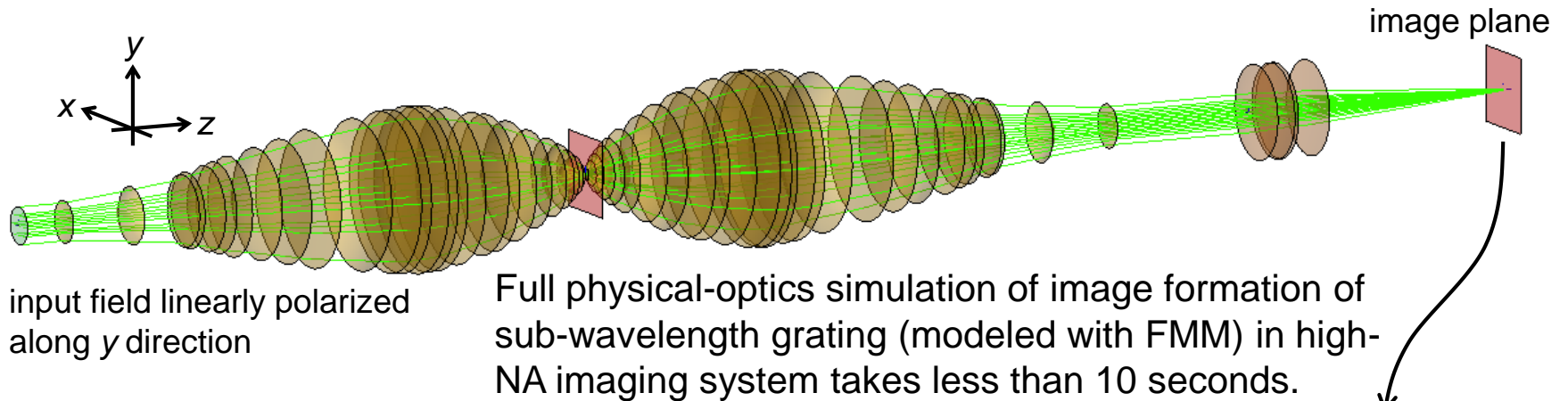


Ray-tracing analysis provides a fast overview of the complete system in space, including multiple diffraction orders.

Field in Focal Plane



Imaging Analysis



Document Information

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|---------------------------------|--|
| title | Imaging of Sub-Wavelength Gratings with Different Profiles |
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| category | Application Use Case |
