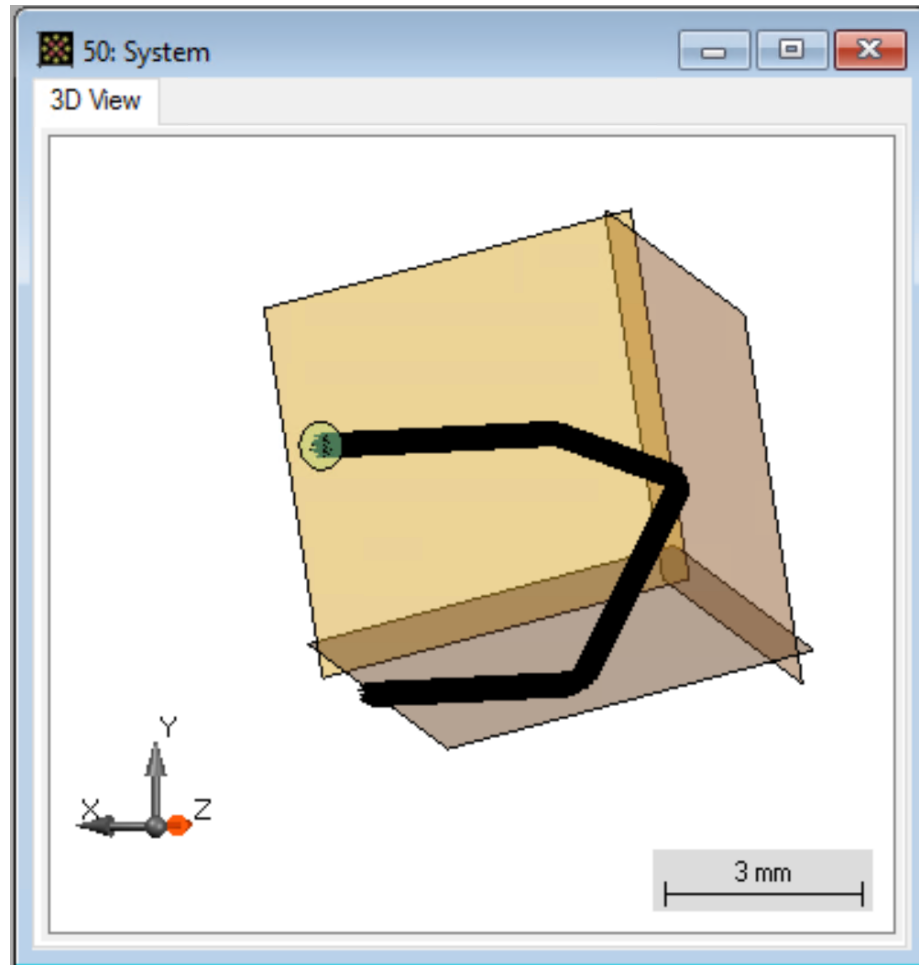


VLF Demo

## **Reflection at a Retro Reflector with Rough Surfaces**

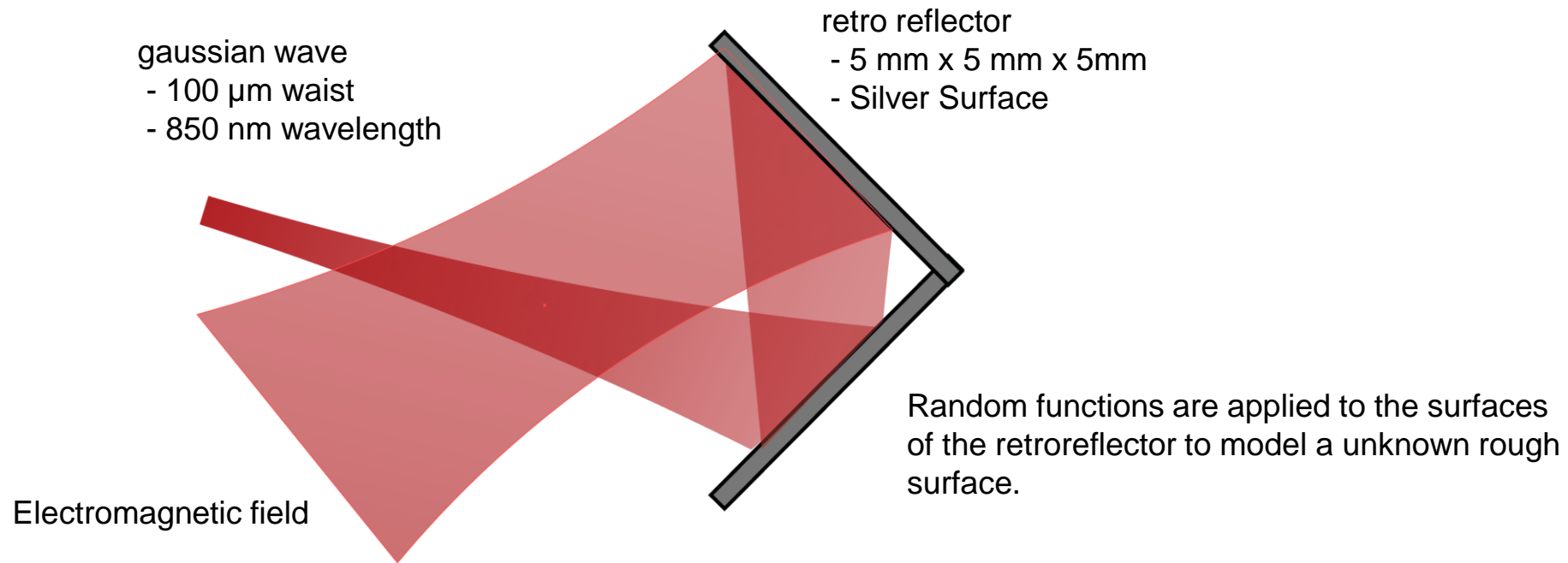
# Abstract



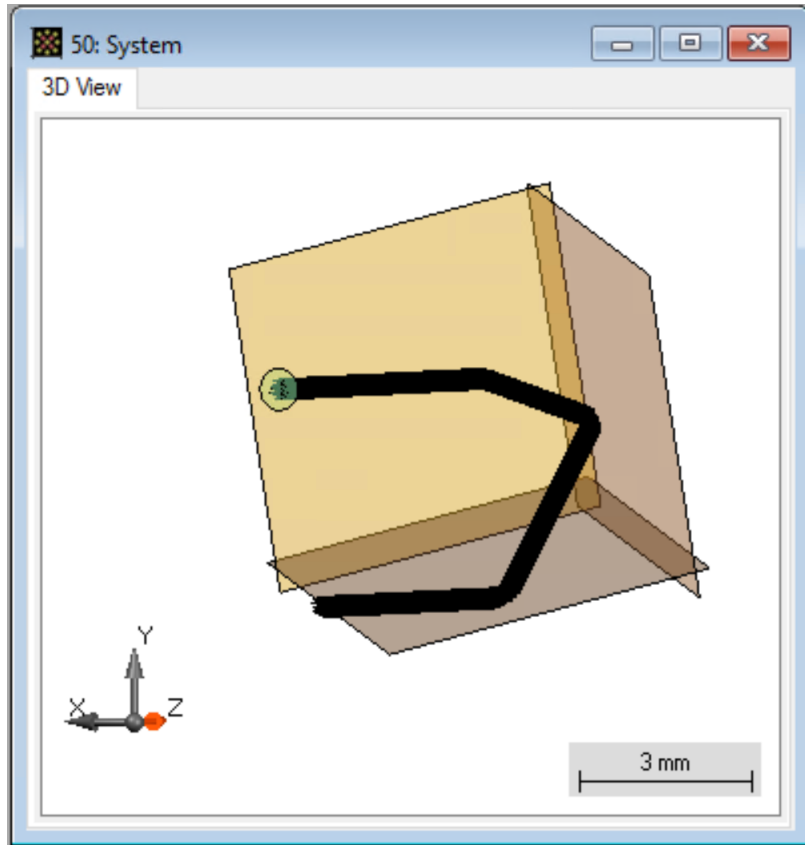
Retro Reflectors are commonly used when trying to reflect light independent from its incident direction roughly back into the same direction. This demonstration shows how to model such kind of structure with the help of Non-Sequential Field Tracing. It also includes rough surfaces for the walls of the reflector. These are model by applying random functions onto the surfaces.

# Task Description

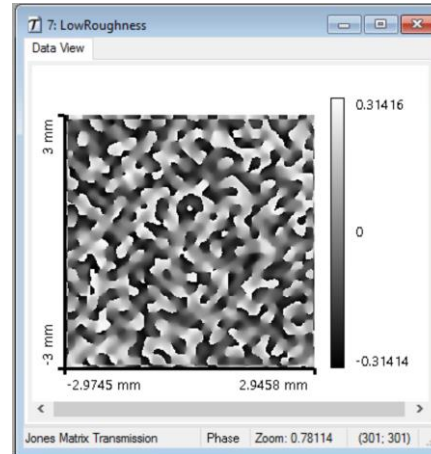
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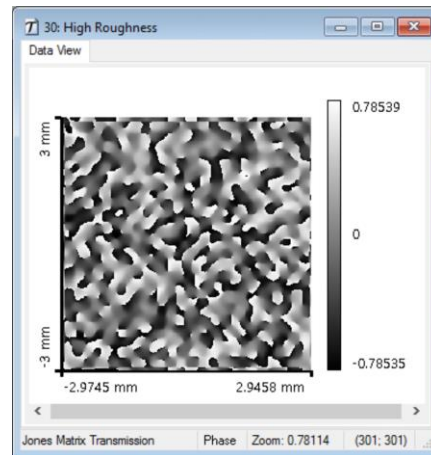
# System Setup



3D View of the System



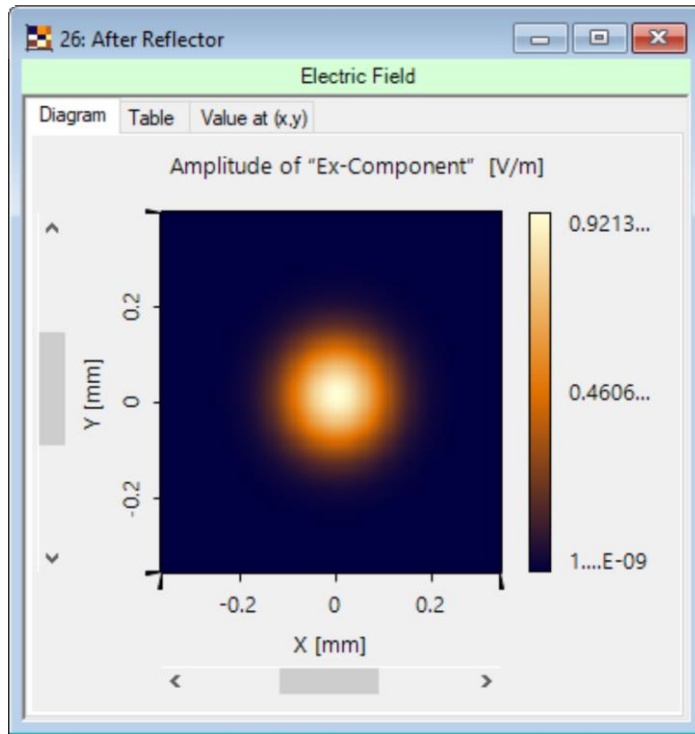
low roughness



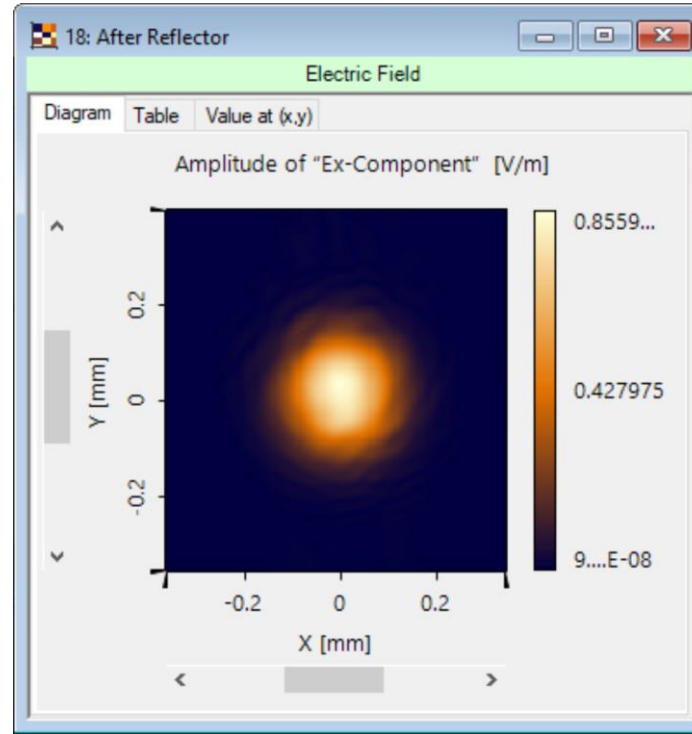
high roughness



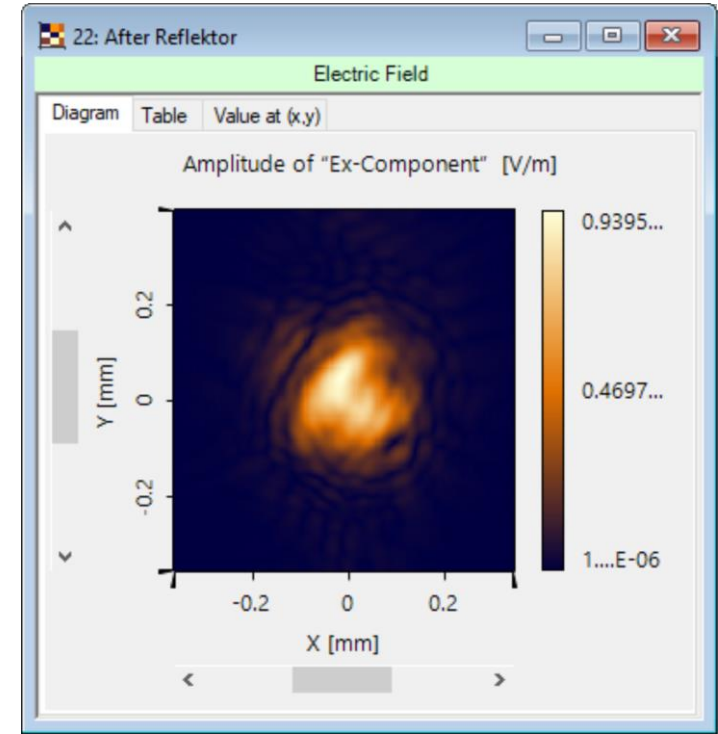
# Simulation Results



no roughness

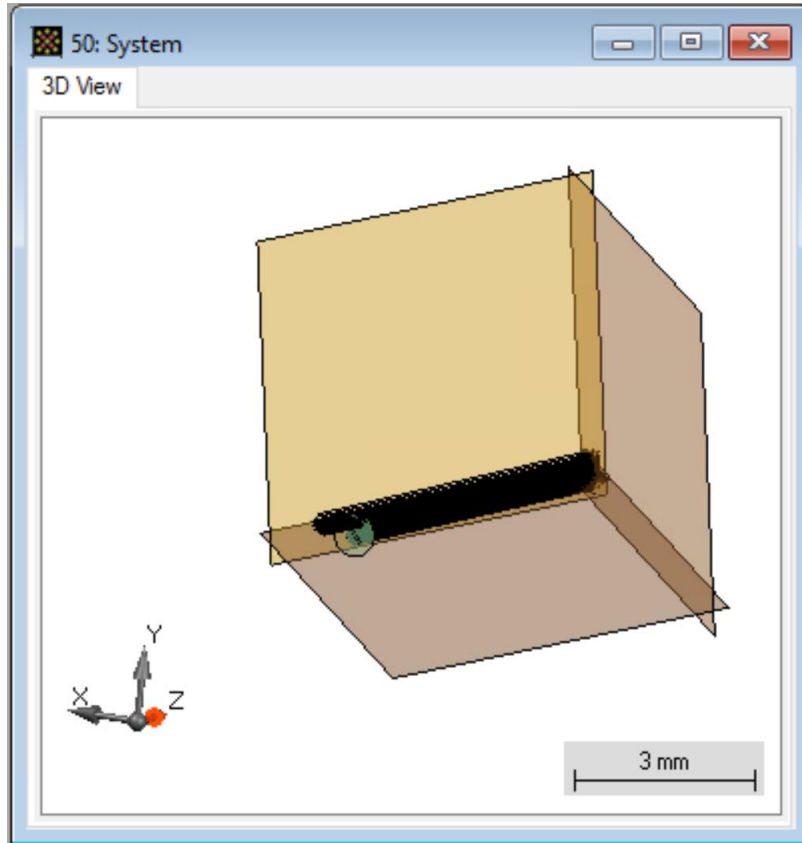


low roughness

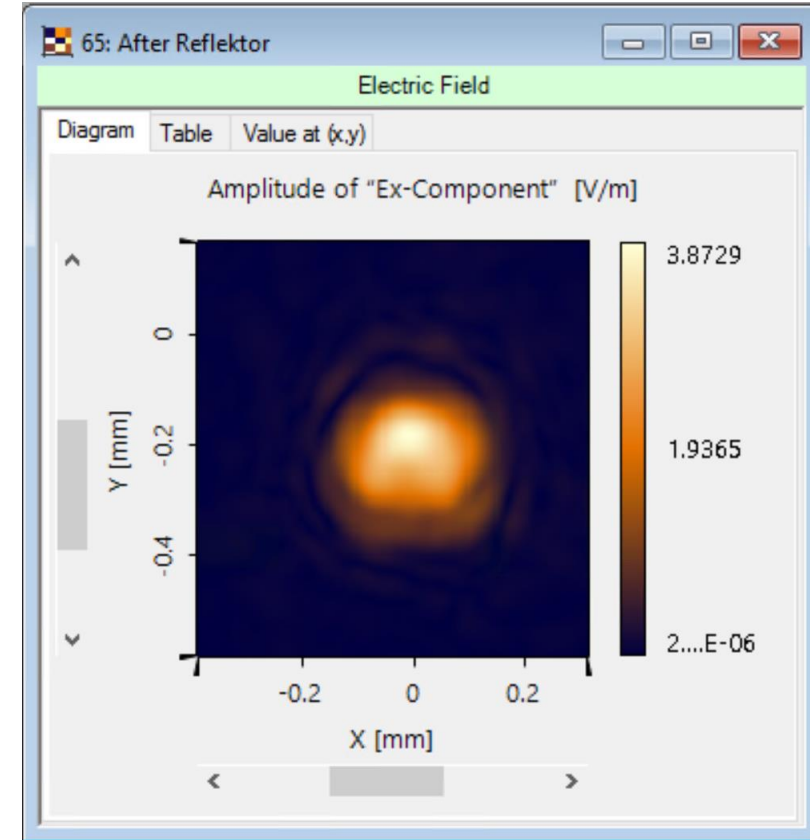


high roughness

# Propagation Into the Vortex



The angle can be adjusted so that the Gaussian beam directly hits the center of the reflector



result at detector plane

# Document Information

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title	Reflection at a Retro Reflector with Rough Surfaces
document code	Demo.0032
version	1.0
VL version used for simulations	VirtualLab Fusion 2020.1
category	Demo
further reading	

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