Webinar

VirtualLab Fusion Applications, Technology & Workflows
Modeling and Design of Metagratings

Date: 2 September 2020
Times: 10:00 – 11:00 and 17:00 – 18:00 (CET)
Speaker: Site Zhang (Chief Technology Officer)
Registration: Please register by clicking **here**.

Metagratings and more general metasurfaces are shown to be potentially powerful devices for various applications. In comparison to the traditional diffractive gratings, metagratings are known for maintaining a high diffraction efficiency in non-paraxial situations. Polarization-insensitive designs are possible with an appropriate selection of the types of nanopillars as the unit cells for the metagratings.

VirtualLab Fusion provides a seamless workflow for design and analyzing metagratings – from the unit cell (single pillar) selection, the composition of metagratings by using pillars with varying parameters, and the parametric optimization of the metagrating structure for further performance improvement.
All the steps can be done in the unified simulation platform VirtualLab Fusion, and, in this webinar, we will demonstrate the workflow above at selected examples:

- Construction and configuration of metagratings in VirtualLab Fusion
- Modeling of blazed metagratings according to P. Lalanne, *et al.*, Opt. Lett. 23, 1081-1083 (1998)
- Design / optimization of large-angle beam-splitting metagratings

	#1	#2	#3	#4	#5
D	118 nm	179 nm	201 nm	247 nm	293 nm
$f=D/u$	0.31	0.47	0.53	0.65	0.77

LIGHTTRANS