Webinar

New Features in VirtualLab Fusion for Fiber Optics

Fiber Coupling, Fiber Mode Sources, and Propagation Through Fibers

Date: 3 February 2021
Times: 10:00 – 11:00 and 18:00 – 19:00 (CET)
Speaker: Huiying Zhong
Registration: Please register by clicking [here](#).

VirtualLab Fusion comes with new features for the modeling and design of systems for fiber optics. Based on linearly polarized (LP) modes and Gaussian-Laguerre solver techniques, we present:

- The fiber source, which emits customer-selected weighted fiber modes,
- The fiber coupling efficiency detectors, which provide the efficiency of the power transferred into multi-mode and single-mode fibers,
- The fiber component, which enables the propagation of electromagnetic fields through fibers.

These new features significantly extend the physical-optics modeling and design capability of VirtualLab Fusion for fiber optics applications. This is demonstrated by examples such as:

- Investigating the aberration effects on the fiber modes in the focal region,
- Analyzing the field propagation through an optical system with fiber components,
- Presenting a complete design workflow of the coupling system of either single-mode or multi-mode fiber, including lens system design and tolerance analysis.

![Fig. Investigation of the aberration effects on fiber modes in the focal region.](image-url)