

LightTrans' Talk at EOS Annual Meeting 2020

## Light Shaping From a Physical-Optics Point of View

The EOSAM Topical Meeting presentations will be available to registered attendees during the conference week as on-demand sessions.

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In the design of optical element for light shaping, a geometric-optics assumption is usually used, where the validity of the assumption is rarely discussed in literature. In this work, the field tracing techniques for modeling light-shaping systems are presented, which reveals the optical element resulted from those geometric-base algorithm is not always accurate enough for the design task. An example is demonstrated with the functional embodiment of the element. The simulation result shows that diffraction effect may occur, especially in paraxial situation. However, the designed result start with the assumption is well-introduced initial guess for further optimization with the iterative Fourier transform algorithm (IFTA).

