Demonstration of optical vortex propagation in on-chip rectangular dielectric waveguides - DTU Orbit (03/01/2019)

Orbital angular momentum (OAM) of light provides an additional degree of freedom for multiplexing the data streams in optical communications, increasing further the channel capacity [1]. Applications of OAM for both classical data transmission [2] and quantum information [3] have been demonstrated. The key step towards robust, suitable for massive production, and cost-efficient OAM-assisted communications is the development of compact, on-chip integrable optical components.

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