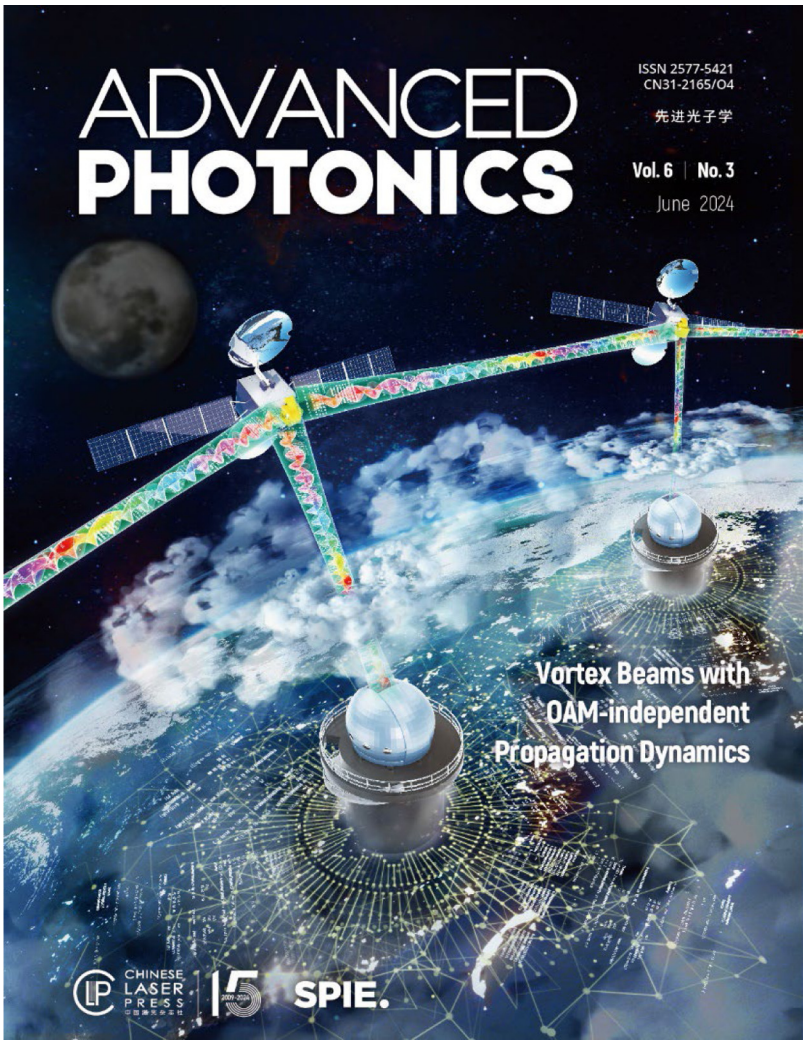

About the cover: *Advanced Photonics* Volume 6, Issue 3

Efforts to boost information processing capacity have led scientists to optical multiplexing techniques, such as polarization and wavelength, enhancing communication capacity. Spatial mode-division multiplexing utilizes orthogonal spatial modes, notably orbital angular momentum (OAM) modes/vortex beams, which offer vast information capacity due to OAM's arbitrary quantization. OAM multiplexing, combined with other multiplexing techniques, appears as a solution to capacity challenges. However, challenges persist, especially with the beam size and divergence of vortex beams increasing with OAM, such as the Laguerre-Gaussian beam. This necessitates larger receivers for more modes and greater capacity, posing a constraint for spatial multiplexing especially with realistically limited-size receivers.

Featured on the cover of *Advanced Photonics* Volume 6 Issue 3 is a schematic of an OAM-multiplexing-based free-space optical communication system utilizing iso-propagation vortex beams with OAM-independent propagation dynamics. This new type of vortex beam overcomes historical limitations related to OAM-dependent divergence, thereby enhancing capacity and demonstrating resilience to atmospheric turbulence.

The image is based on the paper presented in the article by Wenxiang Yan, Zhaozhong Chen, Xian Long, Yuan Gao, Zheng Yuan, Zhi-Cheng Ren, Xi-Lin Wang, Jianping Ding, and Hui-Tian Wang, "Iso-propagation vortices with OAM-independent size and divergence toward future faster optical communications," *Advanced Photonics* **6**(3) 036002 (2024), doi 10.1117/1.AP.6.3.036002