

# Tornado waves

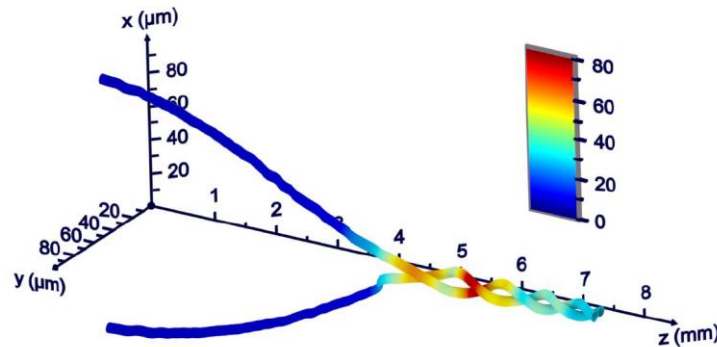
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Structured light has recently attracted the interest of scientific society while it is possible to control it in all its degrees of freedom and dimensions. I will present light spiraling like a tornado over its propagation. Such structured light can be generated by superimposing abruptly auto-focusing ring-Airy beams that carry orbital angular momentum of opposite handedness. This results to a complex wave with intense lobes that twist and shrink in an accelerating fashion along propagation.



[1] A. Brimis, K. G. Makris, and D. G. Papazoglou, "Tornado waves," *Opt. Lett.* 45, 280–283 (2020).

[2] Dimitris Mansour, Apostolos Brimis, Konstantinos G. Makris and Dimitris G. Papazoglou, "Generating Spiraling Light: Optical Tornadoes " *eLight*, under review