
Contribution ID: **356** Type: **Poster Presentation**

# Are Bessel beams resilient to aberrations and turbulence?

*Thursday, 28 June 2018 15:00 (2 hours)*

It is understood from the conical wave picture that Bessel beams may self-heal after certain opaque obstructions, but the extrapolation to transparent phase screens is not self-evident. We demonstrate that self-healing is not guaranteed when the Bessel beam is propagated through transparent obstacles with aberrations but is rather dependent on the strength of the aberrations. Finally we combine aberrations to simulate the Bessel beam passing through turbulence and debunk the myth that Bessel beams are resilient to such perturbations.

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