

Seminar

Thursday, June 23, 2022, 11:00 AM, PHY 5.0.21

Dr. Joel Carpenter
University of Queensland



Arbitrary vector spatiotemporal beamshaping: Any amplitude, phase and polarisation at any delay

In this talk, a new type of beam shaper will be discussed, capable of generating arbitrary vector spatiotemporal beams, where the user can define the amplitude, phase, and polarization independently for each point in space and time. This beam shaper was recently used to demonstrate time reversed optical waves. Such waves propagate through complex media, as if watching a traditional scattering process in reverse - starting as a complicated 'pre-scattered' wave, which then becomes a desired target field at the distal end of the complex media.

https://www.youtube.com/watch?v=1WclejZd_w