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Shaping coherent light

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Abstract :

Light can be shaped both in space and time. Temporal shaping of light has a wide range of applications, spectroscopy, coherent control, pulse characterization to name but a few. Spatial shaping of light equally so with applications in telecommunication, wave-front correction and optical tweezing and more. To shape light, spatial light modulators have been developed which allows us to modify the phase and in some cases also the amplitude of incident light. There is a definite coupling between time and space when shaping light which makes accurate shaping of light a challenge. In this presentation an overview is given of shaping techniques both spatial and temporal highlighting how these difficulties can be surmounted and what the trade-offs are.

Award :

Yes

Level :

PhD

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Paper :

NO

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