

Abstract Submitted
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Can interference occur in conditions where the which-path information is available? JOHN SANDY, DANIEL DOMINGUEZ, LUIS GRAVE DE PERALTA — We show that integrated-optics pulse shapers based on arrayed waveguide gratings (AWGs) can be used to produce interference between femtosecond pulses of light in conditions where the which-path information is available. We base our discussion in recently published experimental results with AWGs illuminated with femtosecond pulses of light. In these experiments, it was possible to know which waveguide of the grating photons passed through. Nevertheless, interference occurred inside of the device.

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