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Remote control of the visibility of an interference pattern ENRIQUE GALVEZ, Colgate University, MATTHEW PYSHER, KARTIK MISRA — We prepared polarization-entangled photon pairs in a superposition of Bell states by sending one of the photons of each pair through a Mach-Zehnder interferometer. As a consequence, the visibility of the interference pattern was controlled by projecting the state of the pair with a polarizer on the path of the photon that does not go through the interferometer. Theory as well as experimental results will be presented. This work is funded by NSF DUE-9952626 and PHY-9988004.

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