

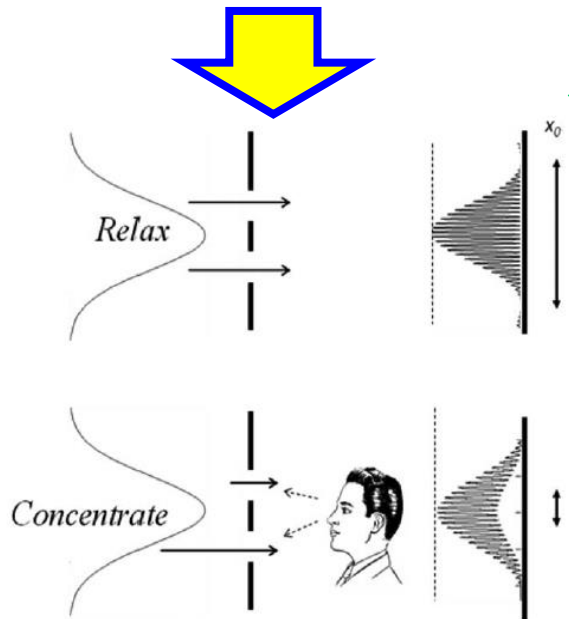
How much light energy change can cause the variation of Radin's double-slit fringe?

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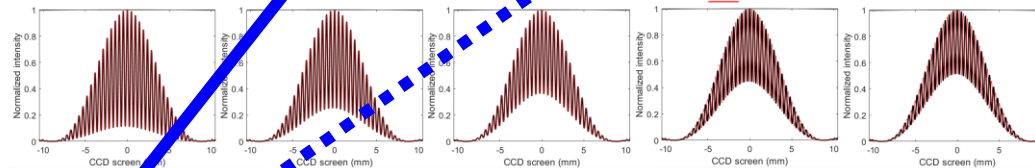
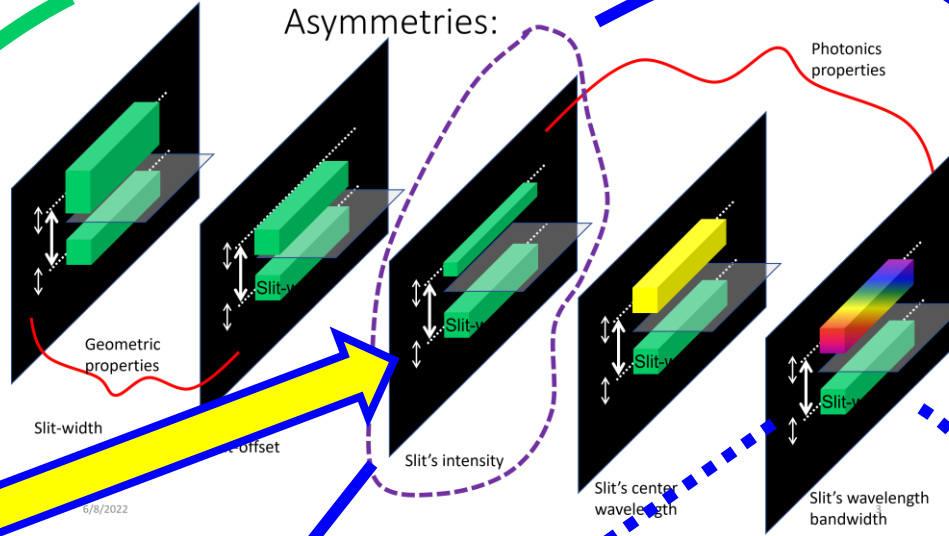
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Psychophysical interactions with a double-slit interference pattern

Dean Radin,^{1, (a)} Leena Michel,¹ James Johnston,² and Arnaud Delorme³

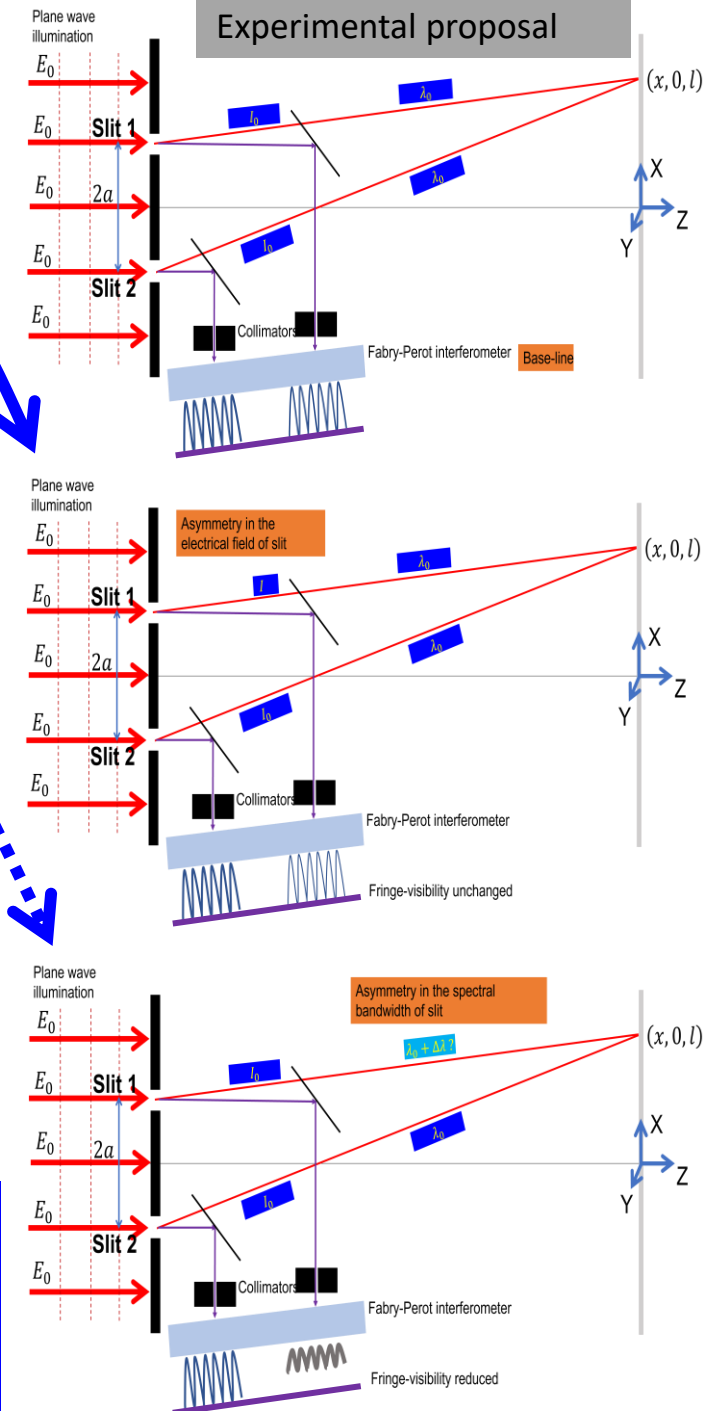


Asymmetries:



Asymmetry of the electrical field	$\frac{1}{2} : 1$	$\frac{1}{3} : 1$	$\frac{1}{4} : 1$	$\frac{1}{5} : 1$	$\frac{1}{6} : 1$
Asymmetry of the spectral bandwidth	0.0017nm	0.00205nm	0.00223nm	0.0037nm	0.0047nm

Experimental proposal



Radin's model: a 3:1 asymmetry of the slit's light field

Piao's model: a slight asymmetry of the spectral bandwidth of the light

The fringe changes corresponding to the two types of asymmetries are indistinguishable by the fringe-visibility alone. The asymmetry of Piao's model takes <math>< 1/100,000</math> of the light-power change as that of Radin's model

If you are interested in sponsoring experimental studies, I can be reached at Daqing.piao@okstate.edu and (405)-744-5250 (office)