

Re: Spooky Action At a Distance Question

Source: <http://sci.tech-archive.net/Archive/sci.physics.research/2004-06/0274.html>

From: Doug Sweetser (sweetser_at_alum.mit.edu)

Date: 06/28/04

Date: 28 Jun 2004 13:10:05 -0400

Hello David:

This sounds right on the mark to me:

> *On the question of QM 'spooky action at a distance', which really*
> *isn't involved in the question, I would like to suggest an image for*
> *popular visualization. I'm not certain how good it is – but here it*
> *is. In painting there is a style called the 'pointillist' style*
> *pioneered by Georges Seurat. Images are built up from a large number*
> *of points of various shades and colors. These blend to give the*
> *overall image. If one looked at a very small piece of a painting the*
> *points would appear to be random. Spooky action at a distance, say by*
> *careful measurement on an entangled painting at a distance, would*
> *change the random collection of dots. But overall the painting would*
> *look quite the same to the viewer and he could never tell, even by*
> *examining the dots closely, what particular actions had been taken on*
> *the distant painting.*

I actually created my own artwork devoted to this idea, titled "Groups of coherent photons behave like waves and particles", a 26"x43" IRIS print that hangs in my livingroom. In every dual slit experiment or spooky type experiment, the source of the particles must be coherent, either in time, space, or both for a laser. Look at any small volume of spacetime, and there will be (to make up numbers), say 0, 3, 5, or 10 photons. Consistently sample the same volume of spacetime. If the source is coherent, a pattern will emerge. If the source is incoherent, the pattern will be random.

Here is a link to the artwork:

<http://world.std.com/%7Esweetser/PopScience/photons/photons.html>

You might also enjoy the textual explanation that goes along with it.

doug
quaternions.com