

Re: Logic behind wave from single electron's double slit experiment ?

Yes, a wave pattern is formed. "Edge diffraction." It is just not as dramatic as n-slit diffraction.

thanks

(How about light through a single slit (any pattern or interference pattern)?)

Same.

thanks

2. But when two slits are used then a wave interference pattern is formed.

A **distinct** pattern is formed.

Correct thanks

In #2, don't electrons generate an EM field, even in a vacuum chamber instead of a wire?

Only if they are accelerated, are photons emitted.

Re: Logic behind wave from single electron's double slit experiment ?

Ok but it has a charge at all times therefore an electric field?
and
without a magnetic field (= EM fields?) the tube couldn't
make it
deviate before it hits the phosphorous surface of a television
tube?

3. If so then could it be its
EM field(same as a
light wave) is generating the
interference pattern
(using two slits) instead of
the electron...or would
that form a much weaker
(less intense) pattern
then that of the electron??

Neutrons have no net charge, and form a
diffraction pattern based
on their momentum (same as electrons).

interesting

OK no net charge doesn't mean no field? An electron/proton
pair also
forms a neutral net charge as a whole...yet they can still have
a
field (locally meaning between the electron and proton
there's TWO
fields and they are not neutral)

Don't quarks (hence Neutron), gluons (not too familiar) have
fields or
charges (otherwise they wouldn't move towards each other)?

Electron charge is simply
a source of *noise*... not pattern. It is a
whole lot easier /
safer to generate a stream of electrons

Re: Logic behind wave from single electron's double slit experiment ?

though...

David A. Smith

I believe Maxwell's equations begin with a charge that then progresses into a field (3d)...no? you can't have a field without a charge?

Please explain how a non-propagating EM field could account for the observed interference.– Hide quoted text –

– Show quoted text –

Are you saying the single electron in the experiment has a non-propagating EM_Field or are you saying there is no EM_FIELD at all?

I was responding to your previous assertion that a non-propagating EM field could give an interference pattern. It cannot. And a propagating EM field represents a photon, not an electron, so your ideas are all wet.