Re: Is State Vector Reduction a 'Process'?

Source: http://sci.tech−archive.net/Archive/sci.physics.research/2005−06/msg00044.html

- *From*: Aaron Bergman <abergman@xxxxxxxxxxxxxxxxx>
- *Date*: Thu, 2 Jun 2005 05:38:57 +0000 (UTC)

In article <1117557478.880943.122100@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
"I.Vecchi" <vecchi@xxxxxxxxxxxxx> wrote:

> Aaron Bergman wrote:
> > In article <1117448074.219697.96620@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>,
> > "Seratend" <ser_monmail@xxxxxxxx> wrote:
> ..
> > > Now how can you deduce (from QM theory) the preferred basis and what we
> > > "really" measure in this experiment?
> >
> > You need to describe to me the macroscopic degrees of freedom in your
> > experiment, ie, the macrostates by which you are performing your
> > observation.
>
> Isn't this obviously circular? Aren't the "the macrostates by which you
> are performing your observation" precisely what decoherence is supposed
> to derive from a purely quantum description the process?

I don't think see how. The macrostates are your pointer states.
Decoherence is the process wherein the zillions of degrees of freedom in
your pointer conspire to diagonalize the reduced density matrix in the
pointer basis.

Aaron

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- ***References***:
  - ♦ ***Re: Is State Vector Reduction a 'Process'?***
    - ◊ *From:* I.Vecchi

- Prev by Date: ***Re: Is State Vector Reduction a 'Process'?***
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