

Re: Vector field

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From: Dirk Van de moortel (dirkvandemoortel_at_ThankS-NO-SperM.hotmail.com)

Date: 02/03/05

Date: Thu, 03 Feb 2005 21:59:41 GMT

"Mike" <eleatis@yahoo.gr> wrote in message
news:1107467462.297603.103270@f14g2000cwb.googlegroups.com...
>
> *Dirk Van de moortel wrote:*
> > *"Randy Poe" <poesbam-trap@yahoo.com> wrote in message*
> *news:1107464354.998658.233520@f14g2000cwb.googlegroups.com...*
> > > *Mike wrote:*
> > > > *That's what we are saying but you miss the point. Events in*
> *spacetime*
> > > > *do not form a vector space because they do not have an inverse.*
> > >
> > > *The assignment of an origin is arbitrary. I can assign my*
> > > *current position at 4 PM Eastern time the coordinates*
> > > *(0,0,0,0).*
> > >
> > > > *A*
> > > > *requirement of a vector space V is that its elements have an*
> *inverse:*
> > > >
> > > > $(X)+(-X) = 0$
> > >
> > > *So?*
> > >
> > > *With the above origin, an event with coordinates*
> > > *(1 m,1 m,1 m,10 m) happens 10 seconds after 4 pm,*
> > > *at a point just about at the upper right corner*
> > > *of my cubicle.*
> > >
> > > *The additive inverse: (-1, -1, -1, -10) corresponds*
> > > *to an event which happened 10 seconds before 4 pm,*
> > > *at about where my trash can is located.*
> > >
> > > *Since I'm very confident that my trash can existed*
> > > *at 10 seconds before 4 pm, I feel confident that*
> > > *both X and -X can meaningfully be assigned as*
> > > *spacetime coordinates for events.*
> > >

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