Subject: Re: cylindrical mapping

Posted by Mirko Vukovic on Thu, 28 Oct 1999 07:00:00 GMT

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In article <3817F983.57B1F428@physics.usyd.edu.au>, Chris Rennie <rennie@physics.usyd.edu.au> wrote:

- > Can anyone suggest a shortcut for plotting a timeseries in
- > cylindrical coordinates? I would like to plot a phase angle
- > as a function of time (which is to be the axial coordinate),
- > and would like to try this representation.

>

- > TIA
- > Chris

I did not quite understand what is plotted vs. what and in what coordinate system. Can you elaborate?

Mirko

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Subject: Re: cylindrical mapping
Posted by Mirko Vukovic on Fri, 29 Oct 1999 07:00:00 GMT
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In article <38192F61.44A514D2@physics.usyd.edu.au>, Chris Rennie <rennie@physics.usyd.edu.au> wrote:

- > Sure.
- > I have a phase angle (-Pi .. +Pi) as a function of time.
- > A flat 2D plot is somewhat unsatisfactory if the data
- > frequently 'wraps around' from -Pi and +Pi, and so I
- > was curious to see the data mapped onto a cylinder.

>

- > I can create a 3D version of the time series from Times[]
- > and Phase[] by:
- > Phase3d[0,*]=Times
- > Phase3d[1,*]=sin(Phase)
- > Phase3d[2,*]=cos(Phase)

>

- > and view the result from various angles. But I am hoping
- > that someone out there has done the harder work of supplying
- > axes, hidden line removal, or imaginative shading etc. Such
- > plots are hard to visualize without additional depth cues.
- > If you have any ideas, please let me know...

> Chris

>

I don't have much experience in 3d plotting, and the little I had did not provide easy to understand plots. How about unwrapping the phase so it goes form 0 to n*2pi and plotting in 2D. Does that make any sense? What is changing from one 2pi interval to the next?

Mirko

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Subject: Re: cylindrical mapping Posted by Chris Rennie on Fri, 29 Oct 1999 07:00:00 GMT View Forum Message <> Reply to Message

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> Mirko

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I have a phase angle (-Pi .. +Pi) as a function of time. A flat 2D plot is somewhat unsatisfactory if the data frequently 'wraps around' from -Pi and +Pi, and so I was curious to see the data mapped onto a cylinder.

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