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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 from 0 to  $n \cdot 2\pi$  and plotting  
in 2D. Does that  
make any sense? What is changing from one  $2\pi$  interval to the next?

Mirko

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