
Subject: Re: Alternate plot scales
Posted by [davidf](#) on Wed, 06 Jan 1999 08:00:00 GMT
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Brad Gom (gombg@uleth.ca) writes:

- > I'm looking for a way to draw a secondary plot scale. The problem is
- > that I want the second axis scale to be a function of the first.
- >
- > For example, the lower x-axis is a standard linear scale, and the upper
- > x-axis is the square of the lower axis. Now the tricky part: I want the
- > tickmarks for the second axis to occur at regular -numeric- (not
- > graphical) intervals.
- >
- > eg. if the lower scale had ticks at [4,5,6,7,8], then it would be
- > trivial to have the upper axis with the corresponding ticks labeled
- > [16,25,36,49,64]. What I want is for the ticks on the upper axis to
- > occur at some interval like [20,25,30,35,40,45,50,55,60] so that their
- > spacing on the plot gets tighter but the numeric interval is constant.

I don't see any problem. The AXIS command will accept the normal XTICKS, XTICKV, etc. keywords. You can make the axis as elaborate and as tightly spaced as you like. Just remember to set the SAVE keyword on the call so subsequent OPLOTS will use the new axis.

Cheers,

David

--

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Subject: Re: Alternate plot scales
Posted by [davidf](#) on Thu, 07 Jan 1999 08:00:00 GMT
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Brad Gom (gombg@uleth.ca) writes:

- > On second thought, heres the plot. Does anyone have any idea
- > how to reproduce it in IDL?
- >
- > [image/jpeg]

Can you supply a *link* to this image. My newsreader downloaded

something, but then threw it away and left me with what you see above. :-(

Thanks,

David

--

David Fanning, Ph.D.

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Subject: Re: Alternate plot scales

Posted by [Brad Gom](#) on Thu, 07 Jan 1999 08:00:00 GMT

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David Fanning wrote:

> I don't see any problem. The AXIS command will accept the normal
> XTICKS, XTICKV, etc. keywords. You can make the axis as elaborate
> and as tightly spaced as you like. Just remember to set the SAVE
> keyword on the call so subsequent OPLOTS will use the new axis.
>

Its funny that someone posted an almost identical question below. I think Sebastien is wanting to do the same thing I am. Your suggested program, however, is not what I need; in the plot, the axis ticks are regularly spaced and there are two plot lines. What I need is one plot line, but with two different scales that you can read values off.

For example, you can plot the Planck Blackbody curve as a function of wavelength, wavenumber, or frequency. Ideally, I want to plot one line, and have three axis that I can read the values off in the proper units. (wavenumber is reciprocal wavelength, and frequency is c divided by the wavelength). The three axis will necessarily have different spacings- ie one may be linear and another logarithmic.

I can include a scan of a plot that I want to duplicate if I haven't explained myself well enough.

thanks
