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Technical Requirements for RPP Figures

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1. Summary

We need an *editable vector postscript* file.

In some cases, *e.g.* a Δm^2 *vs* $\sin^2 2\theta$ plot, we need the text file of x (θ) *vs* y (Δm^2), since we wish to choose scales linear in $\sin^2 2\theta$, logarithmic in $\sin^2 2\theta$, or logarithmic in $\tan^2\theta$.

EDITABLE: We should be able to open the file using Adobe Illustrator to change size, line weights, colors, fonts, *etc.*

> This is the kind of file produced by IDL, PAW, HIGZ, SuperMongo (with some problems), Topdrawer, and a host of other programs. The graphics program *must* produce the postscript file directly; it cannot be converted later.

VECTOR POSTSCRIPT: The postscript file contains a series of directions about how to draw lines, fill shapes, fonts, *etc.*

> Bitmapped (rasterized) files are *not* acceptable. That is, no jpeg, tiff, gif, or files from Photoshop converted to postscript.
> $\Longrightarrow$ They cannot be edited, and are often too large for use in something which will be downloaded from the web. Printing, in particular, looks awful.
>
> Printer files, produced by directing printer output to a postscript file, are *not* acceptable. (This is the usual way to make quasi-postscript files from programs in the KiddieDraw class.)

2. Warnings and suggestions

These are designed to make more professional-looking figures and to save labor on the part of the figure edition (usually me):

- Get the scales, tic marks, perspective, and other such things right. These are hard or impossible to change. (Size, stroke weights, color, and other features are easily changed.)
- Use real fonts, not drawn characters which are often the default. These just need removed and new labels and captions typed by the hapless editor. Real fonts are easily changed, drawn fonts must be retyped by us. Don't worry about the Greek, superscripts, or other funny fonts; just tell us what you want and stick with a simple roman font.

⟹ In IDL, say !p.font = 0
⟹ In Topdrawer, say

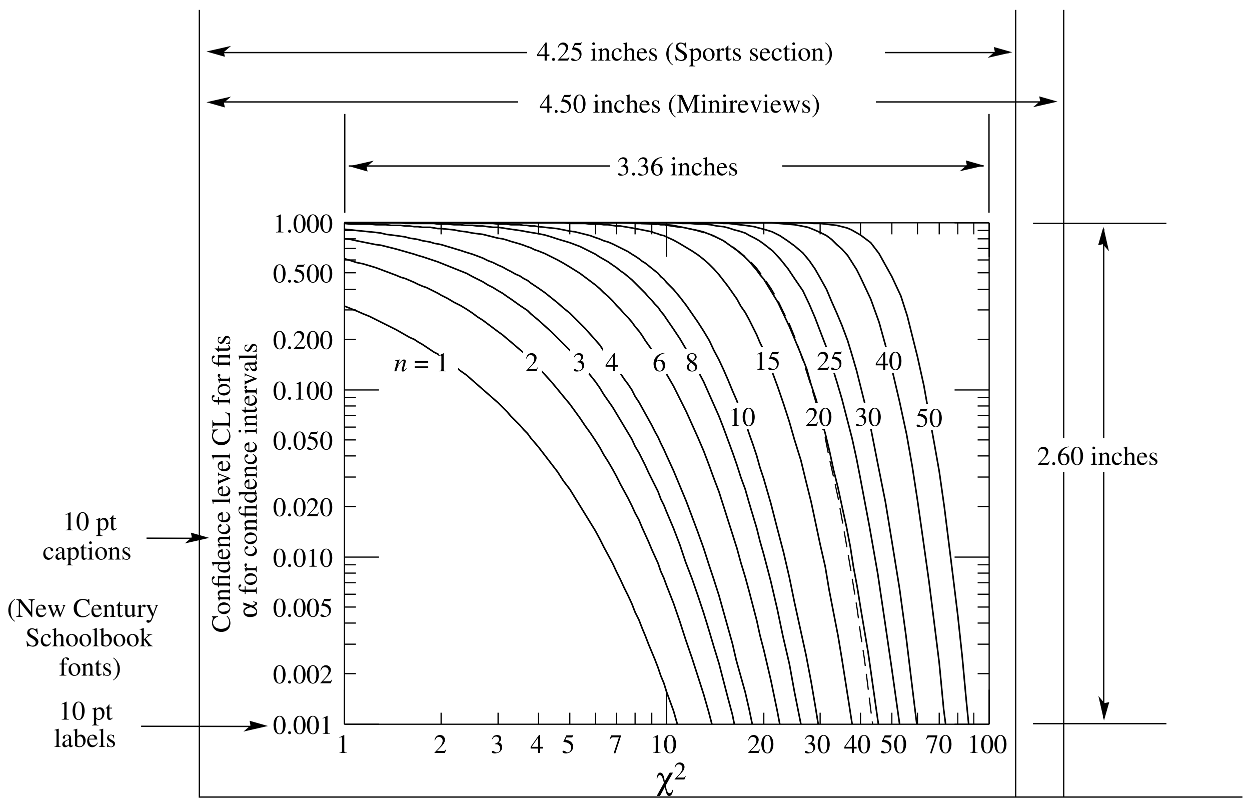
    set font basic
    set mode vector=off

(*don't* say "set font duplex," for example.)
⟹ *Etc.* for other packages. Don't display your ignorance of your graphics package.

Color is a Good Thing, even if the final figure is black and white. If you use different colors for different plotting symbols, different curves, *etc.*, the editor's job is vastly simplified. He can select on color, group, change, or whatever. Besides, a color version can be posted on the web.

Appendix

An example of a single-column PDG-edited figure for RPP is shown below. The supplier of the figure doesn't need to worry about these specifications, but we expect to edit her new figure into something that looks like this. Double-column figures sometimes appear (reluctantly), and the height is not cast in stone. Final stroke weights are typically 0.4 pt. Our choice of the New Century Schoolbook font is made for a closest match to the Computer Modern fonts used in the text.



An Adobe Illustrator file with this figure, useful symbols, and other tools exists as PDG-93-05. Go to `pdg.lbl.gov`, click on Encoder Tools and then on Technical Notes.