

---

Subject: Re: error estimates (a little off-topic maybe)  
Posted by [wmconnolley](#) on Fri, 04 Oct 2002 10:22:38 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Joern Wilms <[wilms@astro.uni-tuebingen.de](mailto:wilms@astro.uni-tuebingen.de)> wrote:

> Also, note that if you're analyzing a time series, then the uncertainty of  
> the power-spectrum is well known through its  $\chi^2$  properties (the  
> power spectrum is the square of the fourier transform of a time series, and  
> it is easy to show that its uncertainty is a  $\chi^2$  distribution with 2  
> degrees of freedom, i.e., the uncertainty of each value of the power spectrum  
> is as large as the value itself).

You can reduce the errors by averaging, of course.

-W

ps: the book I had in mind is "spectral analysis for physical applications",  
percival\_db and walden\_at. But its not a quick fix.

--

William M Connolley | [wmc@bas.ac.uk](mailto:wmc@bas.ac.uk) | <http://www.nerc-bas.ac.uk/icd/wmc/>  
Climate Modeller, British Antarctic Survey | Disclaimer: I speak for myself  
I'm a .signature virus! copy me into your .signature file & help me spread!

---