Subject: Re: sample mean and parametric mean?
Posted by Robert Moss on Sat, 18 May 2002 00:38:28 GMT
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It sounds like what you are after is the most probable value, not the mean. For a symmetric type of distribution (e.g. Gaussian) the mean and the most probable coincide. For a highly skewed type of distribution this is not the case. If you are after the most probable value to describe your rain distribution, you should try using the mode of the distribution, not the mean.

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"hkc" <hkc@ariel.met.tamu.edu> wrote in message
news:a51acbfe.0205171058.682ad0fc@posting.google.com...
> i tried to find the mean of the rain rate.
> because the rainfall data are not continuous,
> i tried to fit data with the gamma distribution using mininum
> chi-squared method
> and calculated the mean using the parameters of gamma function.
>
> the shape of the histogram of rain rates is highly skewed to the right
> and shape parameter is less than 0.5.
> the results show that in the most cases, the parametric mean
> underestimates sample mean.
> why are the sample mean and parametric mean (calculated by the scale
> and shape parameters)
> different?
> and at this situation, what is good mean for rain rates?
>
>
> i tried to do same method with random numbers generated by gamma
> functions.
> the result is same,
> namely if shape parameter(alpha) is less 0.5, the parametric mean
> underestimates sample mean,
> if not, the sample mean and parametric are same...
>
>
> please, let me know if you have any ideas..
>
> thanks