Subject: Re: Calculating cumulative probability using cgHistoPlot
Posted by Xin Tao on Tue, 08 Nov 2011 21:09:17 GMT
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On Nov 8, 11:57 am, David Fanning <n...@dfanning.com> wrote:
> Xin Tao writes:
>
>> Hi all,
>
>> I'm using cghistoplot, and I'm confused by the cumulative probability
>> calculated by cghistoplot. I'm wondering whether any one can give me
>> some help here.
>
>> Suppose we have histdata like this: [2, 0 , 0, 3, 5, 4], then if
>> we use the way of cghistoplot to calculate the cumulative probability
>> like this:
>
>> cumTotal = Total(histData, /CUMULATIVE) ;; gives us
>> [2.00000, 2.00000, 2.00000, 5.00000, 10.0000,
>> 14.0000]
>> probability = Scale_Vector(cumTotal, 0, 1) ;; gives us
>> probability = [0.00000 0.00000 0.00000 0.250000
>> 0.666667 1.00000]
>
>> This is kind of counter-intuitive to me, because the first value of
>> histdata is clearly 2, but the probability is 0 until the 4th value.
>> However, I'm not experienced in data anlaysis, and I might have
>> misunderstood something about "cumulative probability" here.
>
>> It seems to be more natural to me to define the cumulative probability
>> in the following way:
>
>> probability = total(double(hist)/total(double(hist)), /cumula)
>
>> Am I right?
>
> I think you are right. I was both calculating this incorrectly
> and displaying it incorrectly. I think you will be more pleased
> with the updated program. :-)
>
> http://www.idlcoyote.com/programs/cghistoplot.pro
>
> Thanks for pointing this error out.
>
> Cheers,
>
> David
>

> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.idlcoyote.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Thanks David.

Is the link right? I seem to get the same results.

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