Subject: Re: Histogram & Cumulative Distribution Functions
Posted by Justin[3] on Fri, 27 Aug 2004 23:08:17 GMT
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Ooops. Late on a Friday. I was meaning cdf in several places I wrote pdf.
Still would have worked mind you. Soz.

So if h is the output of HISTO then:
cumul = TOTAL(h, /CUMULATIVE)
tot = TOTAL(FLOAT(h))
cdf = cumul/tot

To find the 95th percentile use VALUE_LOCATE on the cdf to get the
index of the array element closest to 0.95

index = VALUE_LOCATE(cdf, 0.95)

If 'l' contains the histo locations then your 95th percentile is at:
l[index]

Justin <kf1zr0y02@sneakemail.com> wrote in
news:Xns9552C1E35BA22kf1zr0y02sneakemail@18.181.0.25:

> To get the CDF from a (discrete) PDF use the TOTAL function with the
> CUMULATIVE keyword:
>
> So if h is the output of HISTO then:
> cumul = TOTAL(h, /CUMULATIVE)
> tot = TOTAL(FLOAT(h))
> pdf = cumul/tot
>
> To find the 95th percentile use VALUE_LOCATE on the pdf to get the
> index of the array element closest to 0.95
>
> index = VALUE_LOCATE(pdf, 0.95)
>
> If 'l' contains the histo locations then your 95th percentile is at:
> l[index]
>
> Make sure you have enough bins in the histogram otherwise the
> percentile value can be coarse. You could even create a new histogram
> (just for the cdf calculation) with nbins >= number of data points to
> give an accuarate percentile value.
>
> Hope this helps,
>
> Justin
>

>
>