Subject: probability scale on 2D line plot?
Posted by Charlotte DeMott on Wed, 09 Dec 1998 08:00:00 GMT
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Does anyone know how to create a "probability axis" for a line plot? This is an axis that runs from nearly zero to nearly 1, that is stretched at each end, such that the cumulative distribution of a normal population appears as a straight line.

For anyone familiar with the atmospheric sciences, numerous examples may be seen in Houze and Cheng, 1977, MWR 106, 964-980.

Thanks,
Charlotte

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Subject: Re: probability scale on 2D line plot?
Posted by Martin Schultz on Mon, 14 Dec 1998 08:00:00 GMT
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Charlotte DeMott wrote:

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> Thanks,
> Charlotte
>
> ---
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Please find attached my little QQNORM program. That's the name of that "deviation from standard probability distribution" function in SPlus. It will compute the deviation from the expected probability for each data point.

Hope this helps,
Martin.

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```
function qqnorm,data

; mgs, 12/14/98, extracted from w_calc.pro
; procedure: sort the data, assign actual "probability" and calculate
; the expected deviation from the mean

   ; compute mean and standard deviation
   bla = moment(data)
   mean = bla[0]
   sigma = sqrt(bla[1])

   ; make working copy to store result and compute sort index
   tmp = data
   tmpind = sort(tmp)
   N = n_elements(tmp)
   for i=0,n-1 do tmp[tmpind[i]] = gauss_cvf( 1.-(i+0.5)/N )
```

```
  return,tmp
end
```

File Attachments

1) qqnorm.pro, downloaded 132 times