

Re: hyperbolic distribution

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On 28 May 2006 15:25:36 -0700, "Martin" <mgcqso@xxxxxxxxxxxxx> wrote:

Hey folks, remember me? I had that problem with the exponential function. In continuing to work on that, I have realized that I actually need an asymmetric spike, one with the left side pulled up and out. I surfed the net and found something called the "hyperbolic distribution," a variation on the exponential function. It is at

<http://www.2dcurves.com/exponential/exponentialhd.html>

The function I suggested was more complicated than the others but it has more flexibility also. It was of the form:

$$y = k \left\{ \frac{1}{1 + \exp(-m(x-a))} - \frac{1}{1 + \exp(-n(x-b))} \right\}$$

You can choose a and b near your peak, k to set your peak height, and adjust m and n to vary the shape on each side.

--Lynn

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