
Subject: Re: gaussian convolution

Posted by [wlandsman](#) on Wed, 27 Sep 2017 17:15:43 GMT

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On Wednesday, September 27, 2017 at 6:37:23 AM UTC-4, KS1989 wrote:

> Dear Wayne,

>

> Could you please explain the mathematics (or refer to some paper) behind convolving with a Gaussian of $\sqrt{b^2 - a^2}$ to change the resolution from a Angstrom to b Angstrom?

One place is in the "proof using convolutions" section of

https://en.wikipedia.org/wiki/Sum_of_normally_distributed_random_variables

--Wayne
