

Astronomical Data Analysis 2011:
Exercise to Lecture on Fitting Astronomical Observations 1
(Due on 7 March 2011 at 13:15)

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1 Gaussian Function

Calculate the average and the variance of the Gauss function

2 Error Function

Show that $\text{erf}(x) = P(1/2, x^2)$.

3 Error Propagation

$x = a \ln(\pm bu)$. Give the relation between σ_x and σ_u .

4 Bad Statistics

Search recent newspaper and magazine articles for one example of bad statistics. Summarize the claim and discuss why it cannot be correct.