

• Chi-squared – generalized

$$\chi^2_{dof} = \frac{1}{N-1} \sum_{i=1}^N \left(\frac{x_i - \bar{x}}{\sigma_i} \right)^2$$

Here we assumed that x_i are scattered around the mean value. Equivalently, our model for x is a constant value.

Now, imagine that there is another variable, independent of x , say time, and x is a function of time. Now we can have a model, e.g. $m(t) = a \cdot t + b$ that gives us the model value for each x_i . We can estimate model parameters a and b by minimizing χ^2_{dof} ! We will do this next time.