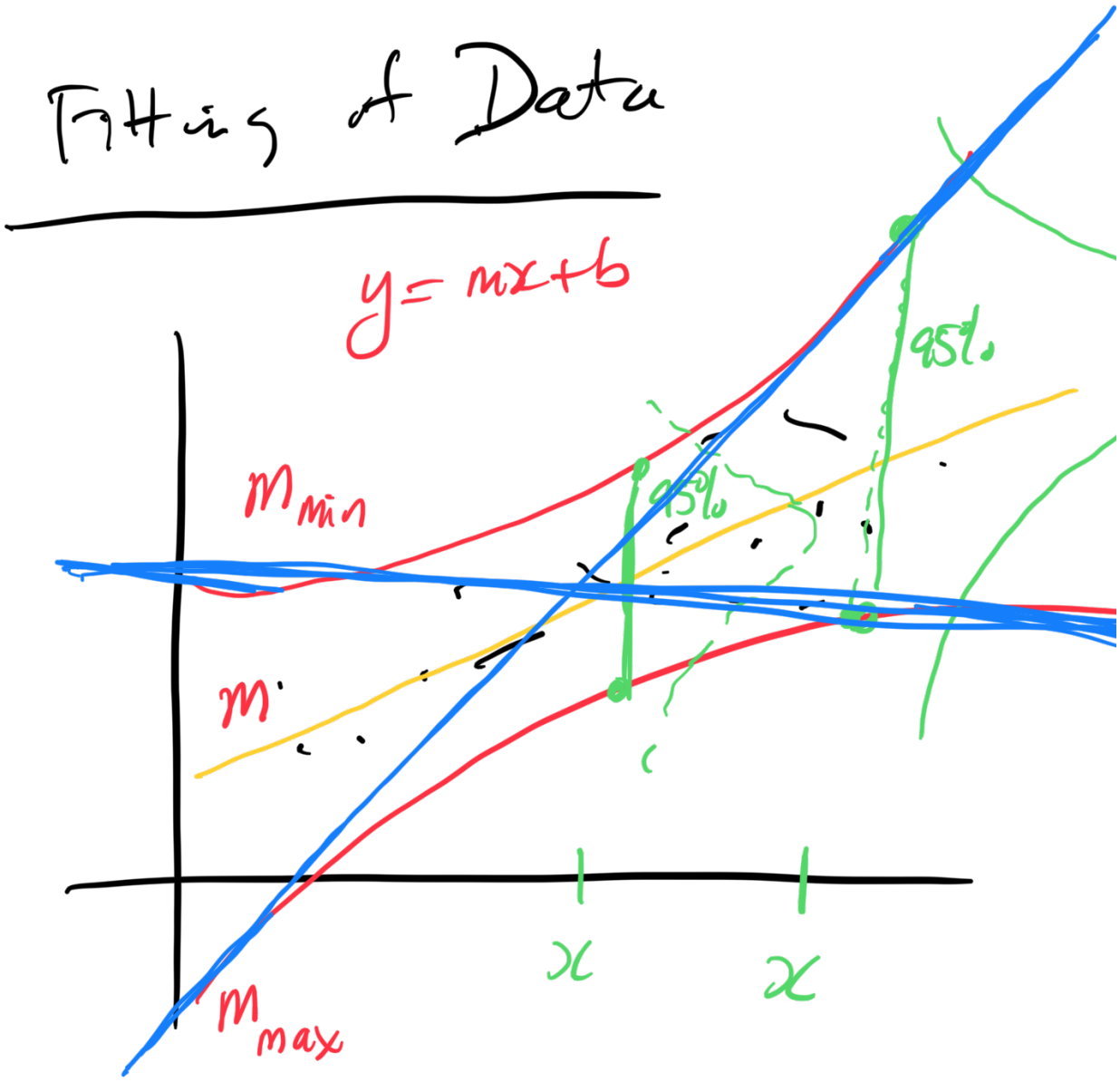
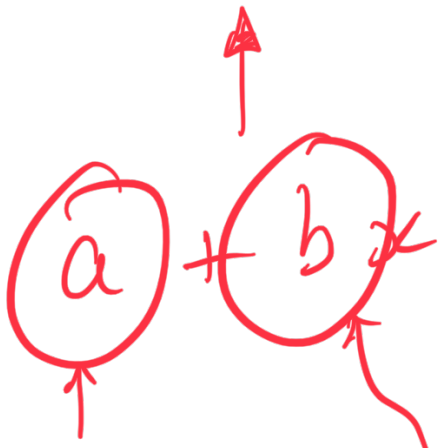
Physics 341 - Lecture 30

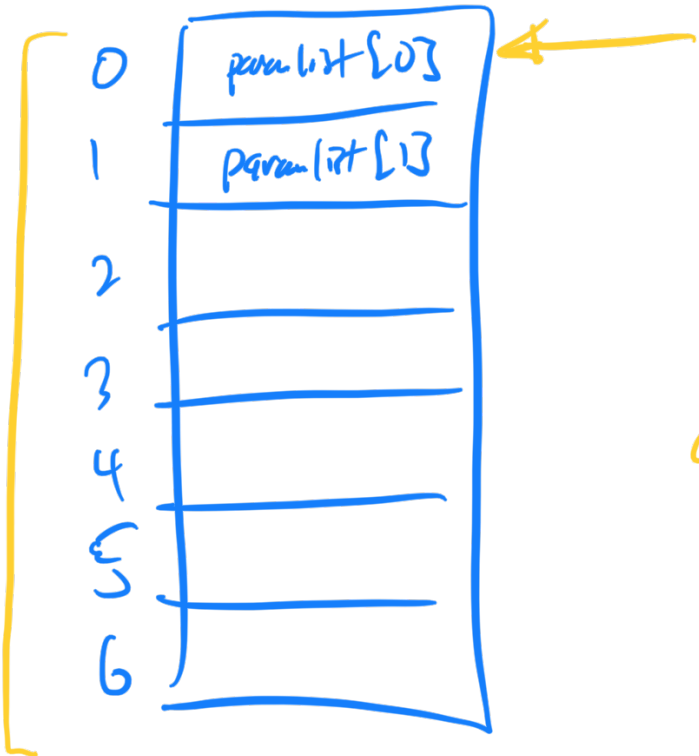
Fitting of Data



fit function

$y_{fit} = f(x)$





popt [ ] -

↑ array of the best fit parameters.

→ pcov

$$\begin{bmatrix} - & - \\ - & - \end{bmatrix}$$

↑ covariance matrix.

$$SS_{TOTAL} = (N-1)\,\mathrm{var}(\text{—})$$

$r^2 \equiv$ correlation coefficient

↑

$$0 \leq r^2 \leq 1$$

$$SS_{model} = (r^2)\,SS_{TOTAL}$$