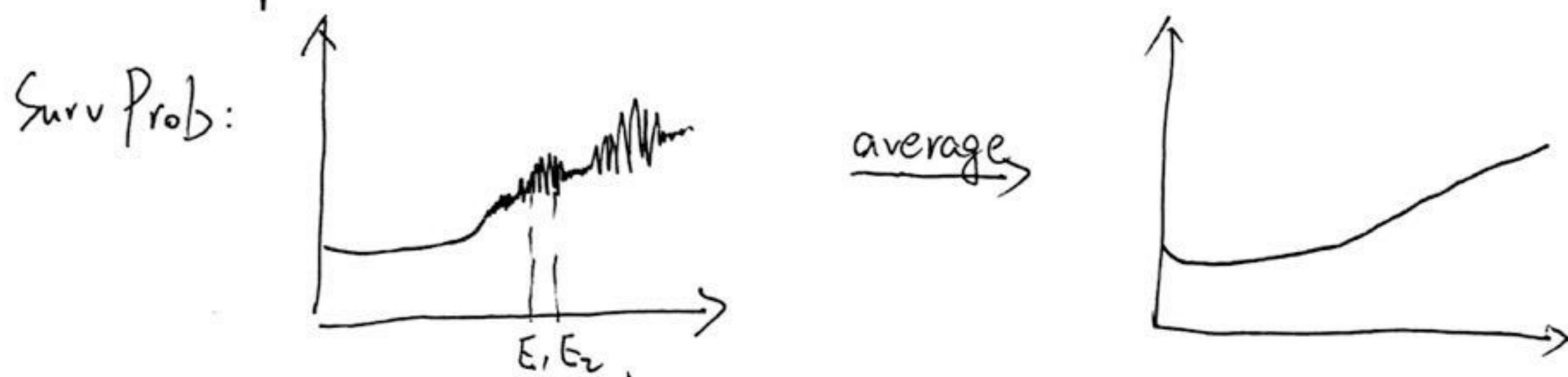


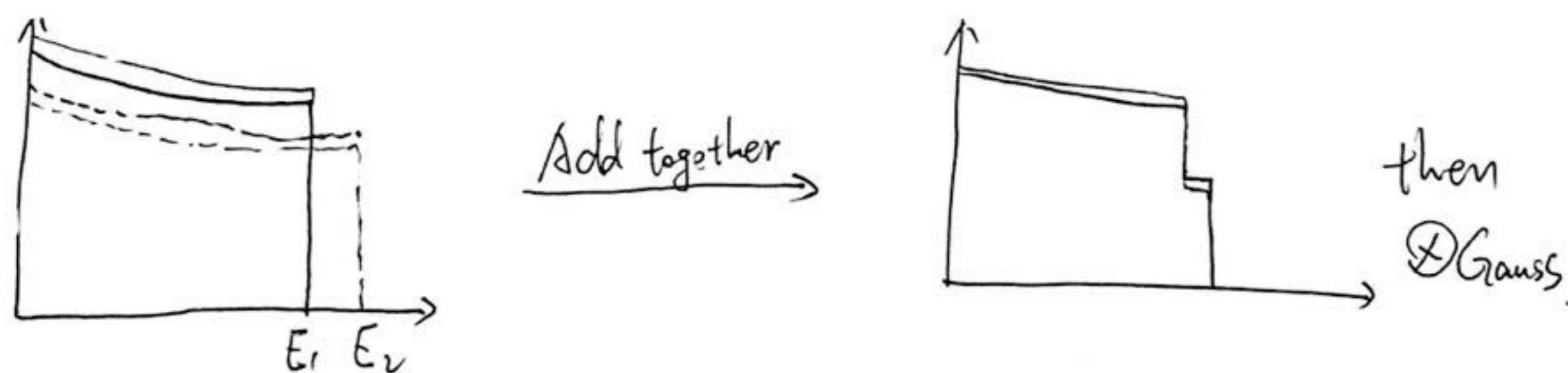
Note for quasi-VAC oscillation,

Take flavor = 3 for example. For $\Delta m_{12}^2 = 1e-7 \text{ eV}^2$,
when energy is above 8 MeV, quasi-VAC oscillation happens.

Here I want to prove that average for quasi-VAC would not affect experiment result.



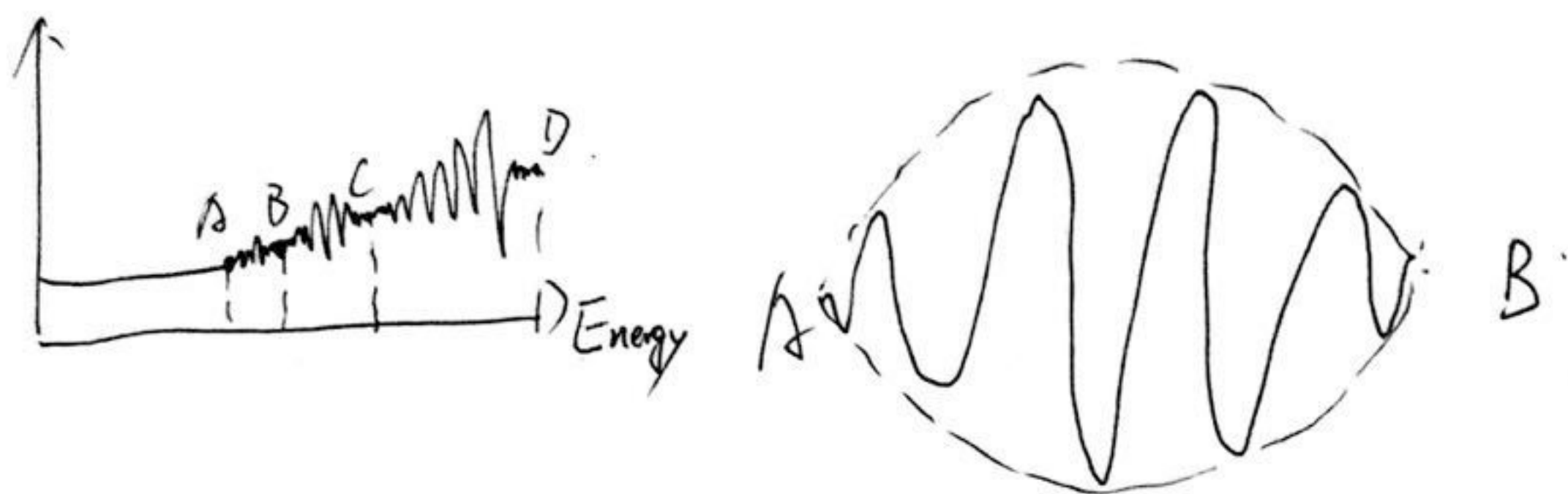
For energy bin at E_1, E_2 , spectra for recoiled electron ~~s~~ are as follows:



So the effect is constrained in $[E_1, E_2]$ bin.

Here I take resolution at $E_1 = \sigma$. if $\sigma > E_2 - E_1$,
then I regard average not to affect spectrum.

Note for quasi-VAC oscillation II.



Take L_{ap} : distance between perihelion & aphelion.

L_{SE} : dist between Sun & Earth.

In this graph, if $L_A = \frac{L_{ap}}{10}$, $L_B = \frac{L_{ap}}{9}$.

$$\text{then } E_B - E_A \propto \frac{1}{90} L_{ap} = \frac{1}{9} E_A.$$

This is the average effect for L_{ap} .

The smaller oscillation between A & B is caused by interference of two effects: L_{ap} average and L_{SE} phase changing.

Usually there will be more than 10 periods between A and B.