

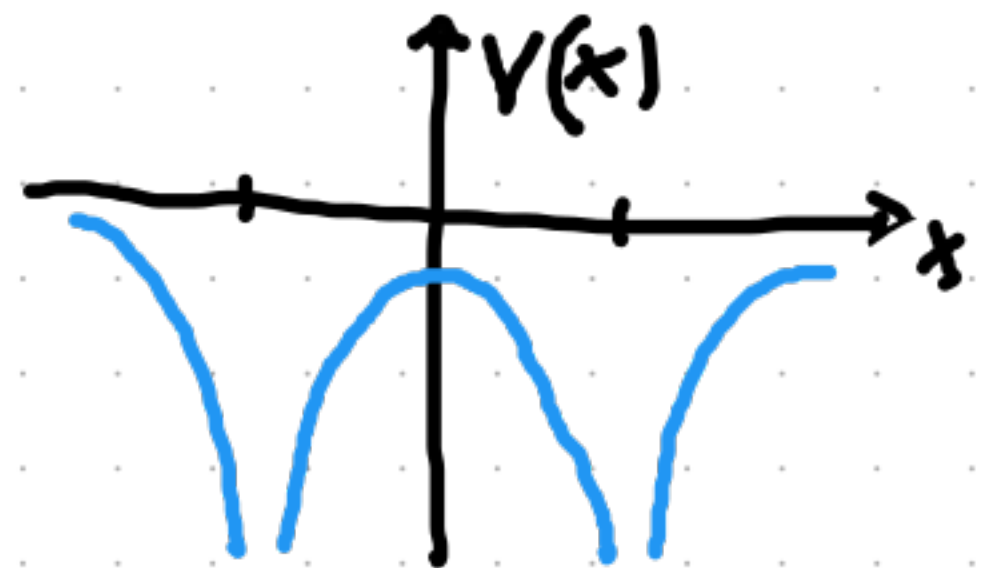
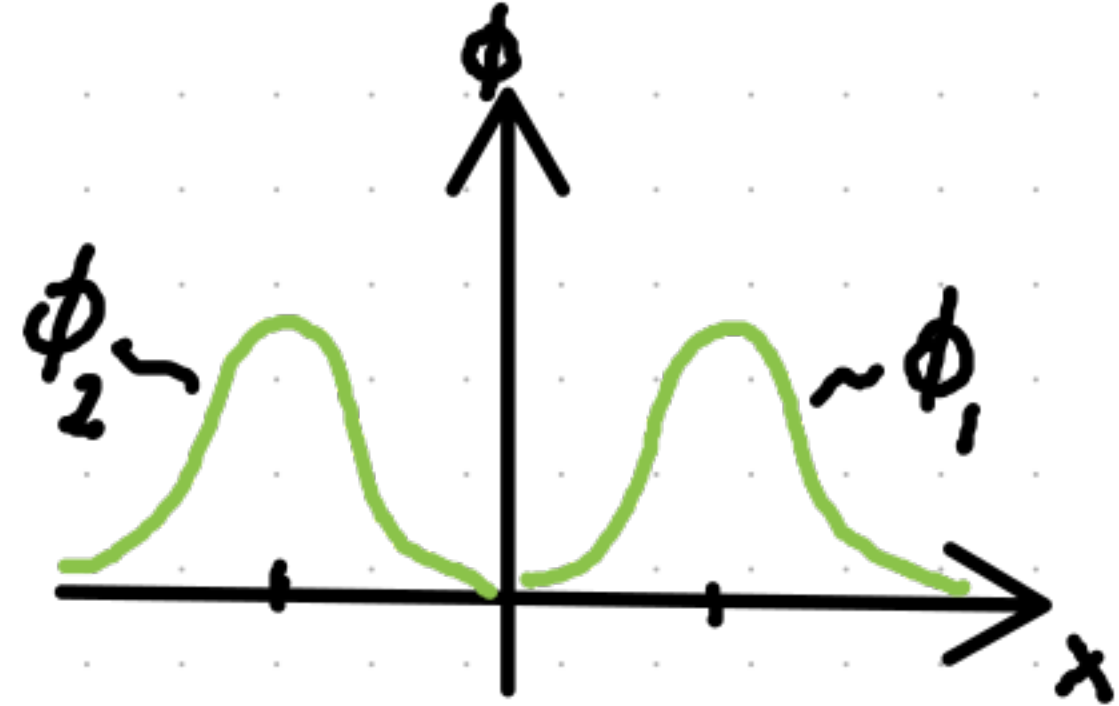
LCAO

$$\psi = c_1 \phi_1 + c_2 \phi_2$$

$$\hat{H}\psi = E\psi$$

$$-\frac{\hbar^2}{2m} \nabla^2 \psi + V(x)\psi = E\psi$$

$$V(x) = V_1(x) + V_2(x)$$



Espl. tanto:

$$-\frac{\hbar^2}{2m} \nabla^2 c_1 \phi_1 - \frac{\hbar^2}{2m} \nabla^2 c_2 \phi_2 + V_1(x) c_1 \phi_1 + V_1(x) c_2 \phi_2 +$$

$$+ V_2(x) c_1 \phi_1 + V_2(x) c_2 \phi_2 = E c_1 \phi_1 + E c_2 \phi_2$$

Ma è troppo complicato, quindi
in forma matriciale:

$$\Rightarrow \begin{pmatrix} \epsilon & \beta \\ \beta & \epsilon \end{pmatrix} \begin{pmatrix} c_1 \\ c_2 \end{pmatrix} = E \begin{pmatrix} c_1 \\ c_2 \end{pmatrix} \Rightarrow E = \epsilon \pm |\beta|$$

