## de Broglicooy vluy

Freko

Plancheir votal 
$$\vec{p} = t \vec{k}$$
  
Einsteiner ortal  $\vec{p} = t \vec{k}$ 

Materia 
$$E = \sqrt{p^2c^2 + m_0c^4}$$
 $form: m_0 = 0 \Rightarrow |E = |p|c$ 
 $|p| = \frac{E}{c} = \frac{t_1c_0}{c} = t_1|c|$ 

Form je popisonan rovinnen vlura

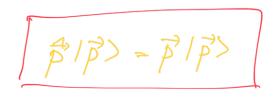
 $V_{p}(\vec{r},t)$   $\sim e^{-i\omega t} + i\vec{k}\vec{r} - \vec{k} = e^{i\vec{k}\cdot\vec{r}}$ 

"Vluora" fembre "fotome It

de Broglieon hoposéra: tale cásticile las priréches vluore les volumes de les prodobné falso fotom

Elekhony:  $V_{\vec{p}}(\vec{r}_{t}) \sim e^{-\frac{i}{\hbar}(\vec{r}_{t} + \vec{p} \cdot \vec{r})}$ 

Take fembre ma fopitoms ober danou hydrode  $|\vec{p}|$ Chreme ahous horax popis, hade per  $\vec{p}'$  for  $|\vec{p}'| > \mu lake,$   $\vec{p}' | \vec{p}' \rangle = \langle \vec{p}' | \vec{p}' \rangle = \langle \vec{p$ 



nœles ted stack procont s  $\hat{p}_{x}$  a velicion  $p_{x}$   $\left(\hat{p}_{x}/p_{x}\right) = p_{x}/p_{x}$ 

Jal pracoral s vice shipui volueti?