

Raisonnement d'Einstein

$$\frac{mc^2}{\sqrt{1-v^2/c^2}} - mc^2 = \gamma mc^2 - mc^2 = Ec = \text{Energie cinétique} = \text{Travail de la force}$$

$$\gamma mc^2 = \left(1 + \frac{1}{2}\right) mc^2 \quad \beta = 1$$

$$\gamma mc^2 = mc^2 - \frac{1}{2}mv^2$$

$$\gamma mc^2 = mc^2 - \frac{1}{2}mv^2 \quad \frac{1}{2}mv^2 = Ec = \frac{mc^2}{\sqrt{1-v^2/c^2}} - mc^2$$

$$\gamma mc^2 = mc^2 - Ec$$

$$E = E_0 + Ec$$

$$E_0 = E - Ec$$

$$E_0 = mc^2$$