Last lecture(s)

- Relativistic momentum p=γ(v)mv
- Relativistic Force $Fx=dp/dt = \gamma^3(v)ma$
- Relativistic Kinetic Energy $K = \int F dx$

 $\begin{array}{l} \mathsf{K} = (\gamma - 1) \mathrm{mc}^2 \rightarrow \mathrm{mv}^2 / 2 \text{ as } \mathrm{v/c} \rightarrow 0 \\ = \gamma \mathrm{mc}^2 - \mathrm{mc}^2 \end{array}$

This lecture

- $K+mc^2 = \gamma mc^2 = E$
- Rest mass energy
- Particle creation!
- Relativistic kinematics

