

Animation on Special Relativity

$$E = MC^2$$

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2. Animation on $E=mc^2$:

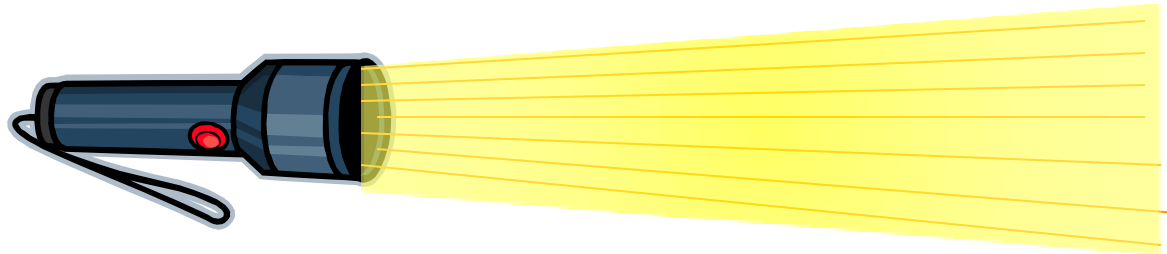
- Mass and energy are equivalent
- Thus energy has mass



Einstein on $E = mc^2$

If a body gives off the energy E in the form of radiation, its mass diminishes by E/c^2 .

- A. Einstein, Does the Energy of a Body Depend On its Energy-Content?, Sept. 27, 1905, *Annalen der Physik*. **18**:639, 1905



→ A flashlight weighs a tiny bit *less* after you turn on the light!

In Einstein's voice:

<http://www.aip.org/history/einstein/voice1.htm>