

2.8.5: Footnotes

1. A. Einstein, "On the Electrodynamics of Moving Bodies," *Annalen der Physik* 17 (1905), p. 891, tr. Saha and Bose.
2. Bailey et al., Nucl. Phys. B150(1979) 1
3. <http://arxiv.org/abs/0908.1832>
4. A double-mass object moving at half the speed does not have the same kinetic energy. Kinetic energy depends on the square of the velocity, so cutting the velocity in half reduces the energy by a factor of $1/4$, which, multiplied by the doubled mass, makes $1/2$ the original energy.
5. Einstein originally described the distinction between the two theories by saying that the special theory applied to nonaccelerating frames of reference, while the general one allowed any frame at all. The modern consensus is that Einstein was misinterpreting his own theory, and that special relativity actually handles accelerating frames just fine.
6. arxiv.org/abs/1310.8214

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