

## SI Units Unification Proof

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See Unified Absolute Relativity Theory at:

<http://www.wbabin.net/saraiva/saraiva105.pdf>  
<http://www.wbabin.net/saraiva/saraiva223.pdf>

We are going to prove that the usual magnetic dipole moment is only a momentum.

$$I \cdot \text{Area} = q \frac{cx_e}{4\pi} = qLV$$

I – Electric current; q – Electric charge; c – Light speed;  
 $x_e$  -- Electron Compton wavelength; L – Distance; V – Speed

Momentum:

$$p = mv = qA$$

m – mass; v – speed; A – Magnetic vector potential

If  $qA = qLV$ ;  $A = LV$

We must to prove that  $A = LV$

But we know that:

$$\frac{dA}{dx} = v \quad \Leftrightarrow \quad A = LV$$

So:  $I : \text{Area} = mv = p$

$$\text{Circulation} = \frac{h}{2m} = \frac{xc}{2} = LV$$

$$A = LV = \text{Circulation}$$

Bohr magneton:

$$\mu_B = IA = \frac{qcx_e}{4\pi} = 9.274 \times 10^{-24}$$

$$\mu_B = \frac{m.c}{137.036} \left( 1 + \frac{\epsilon_0}{x_e} \right) = 9.274 \times 10^{-24}, \quad \epsilon_0 \text{ as units meter}$$

So:  $m = qx$

The mass is the electric dipole moment.

The true magnetic dipole moment is a magnetic charge times a distance

$$MDM = q_m x_e = \frac{h}{2q_e} x_e = 5.0165 \times 10^{-27}$$

Is easy to see that there's a problem with the value of the magnetic moment of the electron; it is too big compared with other particles:

Particle	Magnetic dipole moment in <b>SI</b> units ( $10^{-27}$ <b>J/T</b> )
<a href="#">electron</a>	-9284.764
<a href="#">proton</a>	+14.106067
<a href="#">neutron</a>	-9.66236
<a href="#">muon</a>	-44.904478
<a href="#">deuteron</a>	+4.3307346
<a href="#">triton</a>	+15.046094

Values from Wikipedia