

## Neutrino Mass

António Saraiva – 2009-08-23

[ajps2@hotmail.com](mailto:ajps2@hotmail.com)

See Unified Absolute Relativity Theory at:

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

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

The mass is the electric dipole moment.

Wavelength of the neutrino:

$$x = \sqrt{S} ; \quad S = 1.9 \times 10^{-34} m^2$$

Electric dipole moment or mass:

$$m = q\sqrt{S} = 2.2 \times 10^{-36} kg$$

q – Elementary charge

The neutrino is a Dirac particle because it has mass or electric dipole moment.

## Is the Universe rotating?

P. BIRCH

University of Manchester, Nuffield Radio Astronomy Laboratories, Jodrell Bank, Macclesfield, Cheshire SK11 9DL, UK

From the study of the position angles and polarization of high luminosity classical-double radio sources, it appears that the difference between the position angles of elongation and of polarization are highly organized, being generally positive in one half of the sky and negative in the other. The effect was first noticed amongst a sample of 94 3CR sources and later confirmed in three independent samples. Such a phenomenon can only have a physical explanation on a cosmic scale; an attractive theory is that it demonstrates the existence of a universal vorticity, that is, that the Universe is rotating with an angular velocity  $\approx 10^{-13}$  rad yr<sup>-1</sup>. This would have drastic cosmological consequences, since it would violate Mach's principle<sup>1,2</sup> and the widely held assumption of large-scale isotropy.