

Effect of time reversal on some variables of classical physics

Even

<http://en.wikipedia.org/wiki/T-symmetry>

Classical variables that do not change upon time reversal include:

$\vec{x}$, Position of a particle in three-space

$\vec{a}$, Acceleration of the particle

$\vec{F}$, Force on the particle

E , Energy of the particle

ϕ , Electric potential (voltage)

$\vec{E}$, Electric field

$\vec{D}$, Electric displacement

ρ , Density of electric charge

$\vec{P}$, Electric polarization

Energy density of the electromagnetic field

Maxwell stress tensor

All masses, charges, coupling constants, and other physical constants, except those associated with the weak force.

Odd

Classical variables that time reversal negates include:

t , The time when an event occurs

$\vec{v}$, Velocity of a particle

$\vec{p}$, Linear momentum of a particle

$\vec{l}$, Angular momentum of a particle (both orbital and spin)

$\vec{A}$, Electromagnetic vector potential

$\vec{B}$, Magnetic induction

$\vec{H}$, Magnetic field

$\vec{j}$, Density of electric current

$\vec{M}$, Magnetization

$\vec{S}$, Poynting vector

Power (rate of work done).