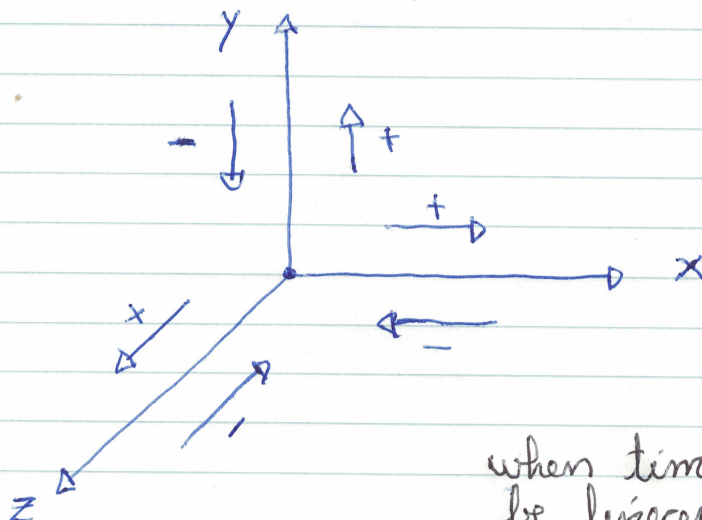


$$\vec{v} = \pm v_x \vec{e}_x + \pm v_y \vec{e}_y \quad [\text{vector}]$$



when time ceases to be linear, all of physics will break.

particles.

waves

$$A \sin(\omega t + \phi); B \cos(\omega t + \phi)$$

A - amplitude

$$\omega = 2\pi f = \frac{2\pi}{T}$$

$$\omega t = \boxed{2\pi} \times \frac{t}{T}$$

Fourier transform

why Laplace?

Because people by nature are lazy and like everything easy, better to work with polynomials than exponentials or sines and cosines, or ~~dodge~~ the bullet of derivatives and integrals all together in the Alice wonder land.

basics

$$x + 0 = x$$

$$x + 3 - 3 = x$$

$$(x + 3) - 3 = x$$