Virtual Clicker

https://pollev.com/dannycaballe980

Notes for today

http://dannycaballero.info/phy482msu_s2020/notes/29-slides.html

True or False: EM Waves can have velocities higher than c.

A. True
B. False
C. I don't know what to believe anymore

Fourier tells us that we can write a "pulse" by summing up sinusoidal functions:

$$f(x) = \int_{-\infty}^{\infty} a(k)e^{ikx}dk$$

If we were to compute $f(x) = \int_{-\infty}^{\infty} a(k)e^{ik(x-vt)}dk$ where v is a known constant, what would we get?

A. $f(x)$
B. $f(vt)$
C. $f(x - vt)$
D. Something complicated!
E. ???

Fourier tells us that we can write a "pulse" by summing up sinusoidal functions:

$$f(x) = \int_{-\infty}^{\infty} a(k) e^{ikx} dk$$

If we were to compute $f(x) = \int_{-\infty}^{\infty} a(k) e^{ik(x - v(k)t)} dk$ where $v(k)$ is function, what would we get?

A. $f(x)$
B. $f(vt)$
C. $f(x - vt)$
D. Something more complicated!
E. ???