

Index

A

accelerated reference frames

[6.5: Accelerated Reference Frames](#)

B

beats

[1.5: Beats](#)

Bragg's Law

[7.1: Bragg's Law](#)

C

canonical momentum

[8.7: Kinetic and Total Momentum](#)

centripetal acceleration

[6.2: Circular Motion](#)

complex exponentials

[12.4: Complex Exponential Solutions](#)

complex waves

[9.1: Math Tutorial — Complex Waves](#)

D

de Broglie wavelength

[7.5: Mass, Momentum, and Energy](#)

Derivatives

[1.8: Math Review — Derivatives](#)

diffraction fringes

[2.4: Diffraction Through a Single Slit](#)

diffraction grating

[2.6: Diffraction Gratings](#)

dispersion relation

[1.9: Group Velocity](#)

[2.2: Plane Waves](#)

E

elastic collisions

[10.4: Collisions](#)

Euler's equation

[9.1: Math Tutorial — Complex Waves](#)

F

Fermat's Principle of Least Action

[3.5: Fermat's Principle](#)

forced oscillator

[12.3: Forced Oscillator](#)

G

gravity waves

[2.2: Plane Waves](#)

group velocity

[1.9: Group Velocity](#)

I

inelastic collisions

[10.4: Collisions](#)

K

kinetic momentum

[8.7: Kinetic and Total Momentum](#)

L

line of simultaneity

[4.1: Galilean Spacetime Thinking](#)

Lorentz contraction

[4.5: Lorentz Contraction](#)

M

Michelson interferometer

[1.6: Interferometers](#)

N

Newton's third law

[10.2: Newton's Third Law](#)

O

orbital angular momentum

[9.3: Confined Matter Waves](#)

P

Partial derivatives

[8.5: Math Tutorial – Partial Derivatives](#)

Particle in Box

[9.3: Confined Matter Waves](#)

R

reflection

[3.1: Reflection and Refraction](#)

refraction

[3.1: Reflection and Refraction](#)

relativistic Doppler effect

[5.5: The Doppler Shift](#)

rocket propulsion

[10.5: Rockets and Conveyor Belts](#)

S

simultaneity

[4.3: Postulates of Special Relativity](#)

Snell's law of refraction

[3.1: Reflection and Refraction](#)

Spacetime

[4.1: Galilean Spacetime Thinking](#)

[4.2: Spacetime Thinking in Special Relativity](#)

spin angular momentum

[9.3: Confined Matter Waves](#)

superposition

[2.3: Superposition of Plane Waves](#)

T

thin film interference

[1.7: Thin Films](#)

Time dilation

[4.4: Time Dilation](#)

total momentum

[8.7: Kinetic and Total Momentum](#)

twin paradox

[4.6: Twin Paradox](#)

V

vector

[2.1: Math Tutorial — Vectors](#)

Vector Addition

[2.1: Math Tutorial — Vectors](#)

W

wave vector

[2.2: Plane Waves](#)

world line

[4.1: Galilean Spacetime Thinking](#)

[4.2: Spacetime Thinking in Special Relativity](#)