



PHY 101
CSE 231 D1

OSCILLATION

GROUP PRESENTATION

WELCOME





PHY 101
CSE 231 D1

MEET OUR TEAM (ALPHA)



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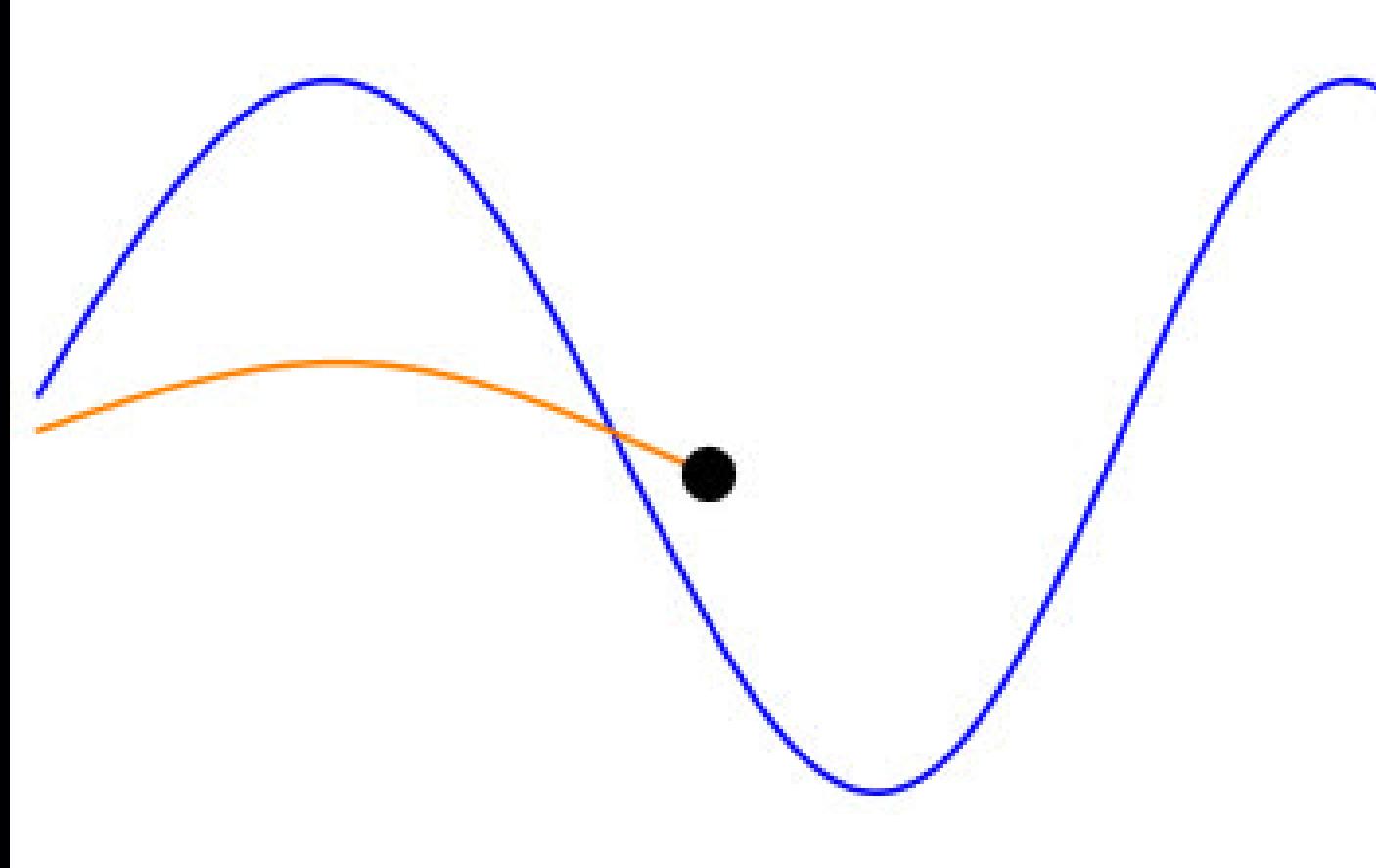
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OSCILLATION



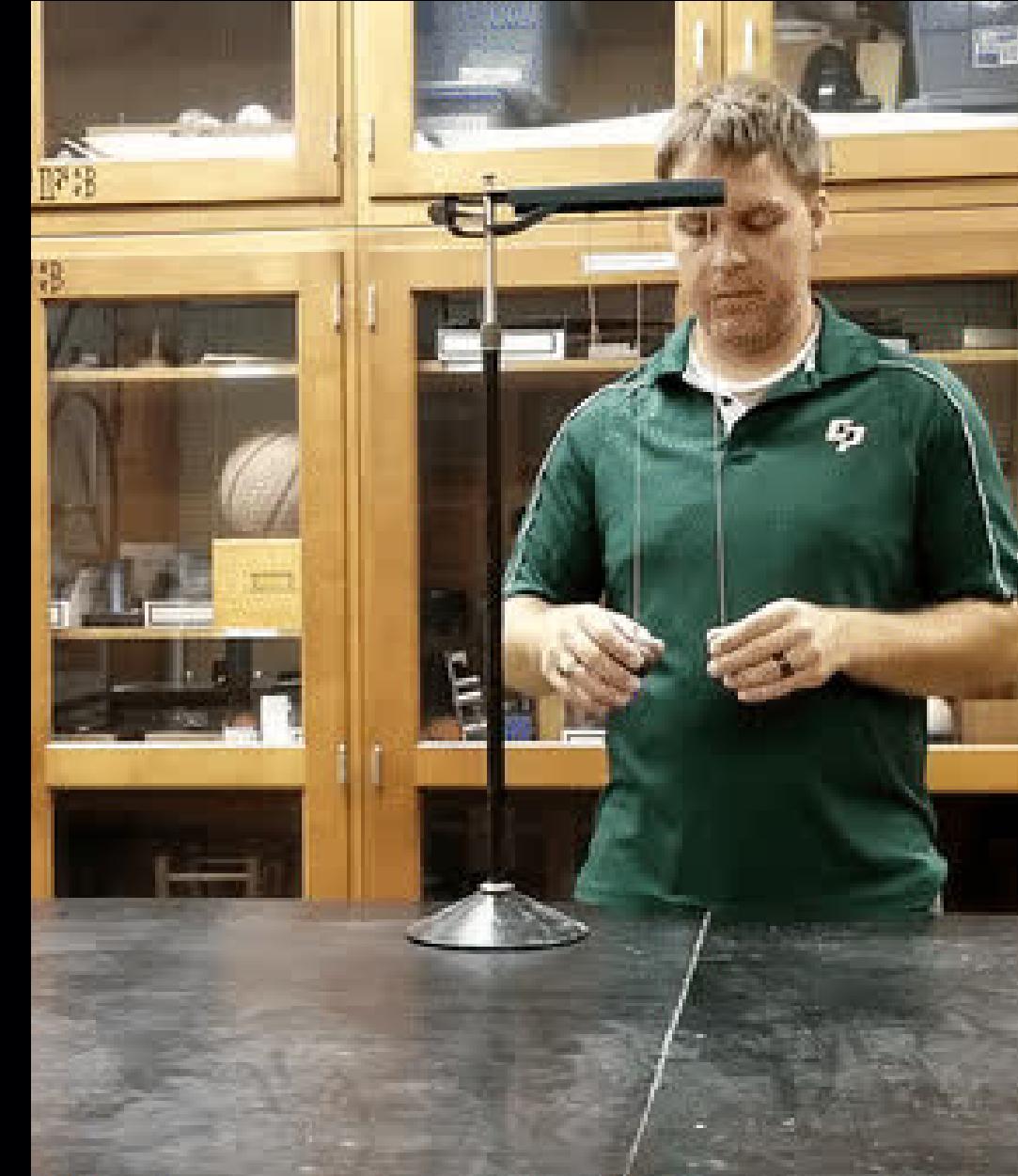
Oscillation is the repetitive or periodic variation, typically in time, of some measure about a central value (often a point of equilibrium) or between two or more different states. Familiar examples of oscillation include a swinging pendulum and alternating current. Oscillations can be used in physics to approximate complex interactions, such as those between atoms.

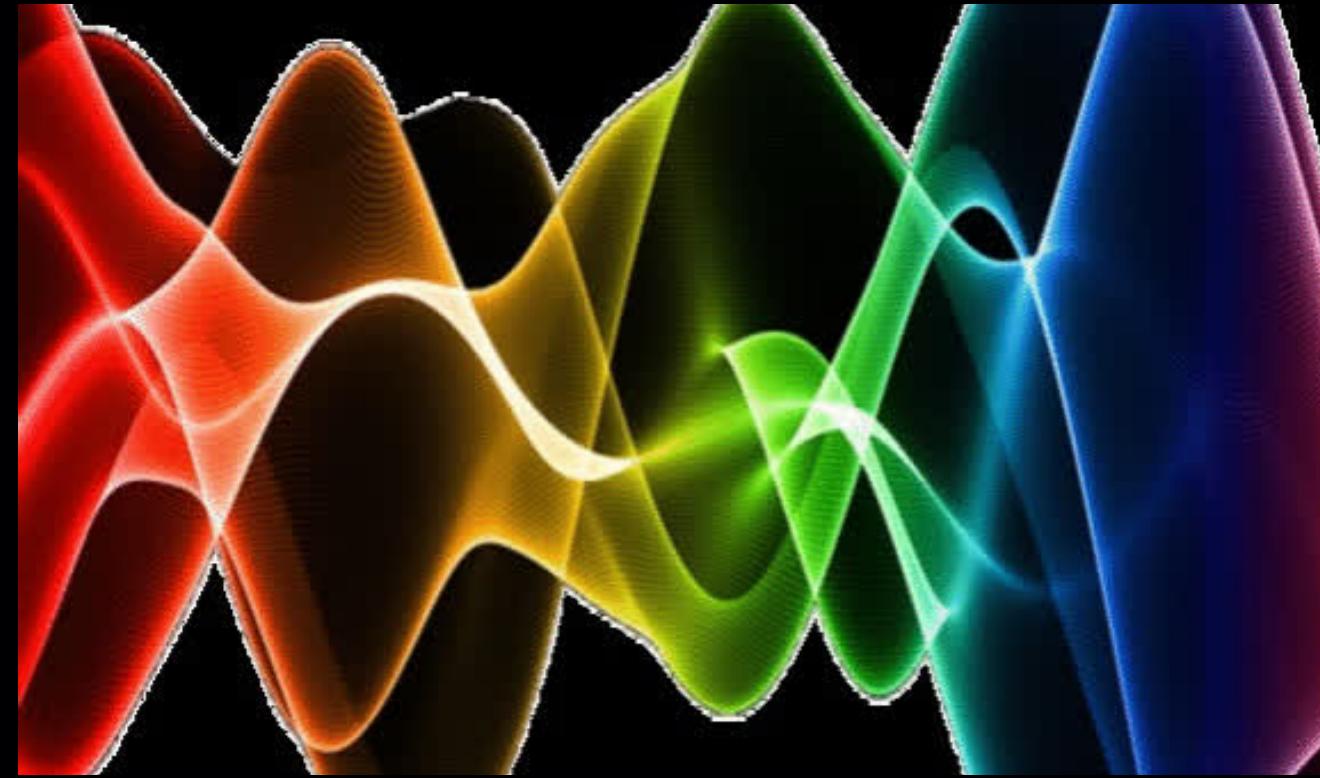
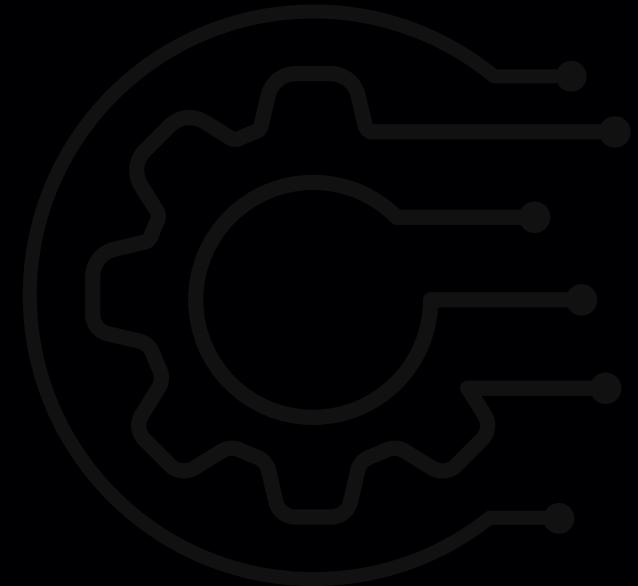


SIMPLE HARMONIC MOTION

Simple harmonic motion is a type of periodic motion where an object oscillates back and forth around its equilibrium position in a manner that is characterized by a specific pattern of motion.

EXAMPLE – Simple pendulum, Mass-spring system, Sound waves, Electromagnetic waves, Mechanical resonance





FREQUENCY

Frequency is the number of oscillations in the one-time unit, says in a second.

EXAMPLE : A pendulum that takes 0.5 seconds to make one full oscillation has a frequency of 1 oscillation per 0.5 seconds or 2 oscillations per second.



RESONANCE

What is resonance?

Resonance describes the phenomenon of increased amplitude that occurs when the frequency of an applied periodic force (or a Fourier component of it) is equal or close to a natural frequency of the system on which it acts. When an oscillating force is applied at a resonant frequency of a dynamic system, the system will oscillate at a higher amplitude than when the same force is applied at other, non-resonant frequencies.

Examples of resonance are: Sympathetic vibrations of the pendulum, Resonance in radio and TV receivers.





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DAMPED OSCILLATION



THANK YOU

TEAM ALPHA

