Mindluster Platform

About the course MIT Physics III Vibrations and Waves

For a vibration to occur an object must repeat a movement during a time interval. A wave is a disturbance that extends from one place to another through space. Light and sound are vibrations that move through space -- they are waves!

Science Category's Courses

Course Lesson(24)

Lesson 1 : **8 03 Introduction Walter Lewin**

Lesson 2 : **8 03 Lect 1 Periodic Phenomena SHO Complex Notation Physical Pendulum**

Lesson 3 : **8 03 Lect 2 Beats Damped Free Ocillations Quality Q**

Lesson 4 : **8 03 Lect 3 Driven Oscillations With Damping Steady State Solutions Resonance**

Lesson 5 : **8 03 Lect 4 Forced Oscillations Power Resonance Transient Solutions**

Lesson 6 : **8 03 Lect 5 Coupled Oscillators Resonance Frequencies Superposition of Modes**

Lesson 7 : **8 03 Lect 6 Coupled Oscillators Steady State Transient Solutions Intial Conditions**

Lesson 8 : **8 03 Lect 7 Many Coupled Oscillators Wave Equation Transverse Traveling Waves**

Lesson 9 : **8 03 Lect 8 Traveling Waves Standing Waves Longitudinal Waves Energy in Waves**

Lesson 10 : **8 03 Lect 9 Sound Cavities Resonance Frequencies Musical Instruments**

Lesson 11 : **8 03 Lect 10 First Exam Review Breaking Wine Glass with Sound**

Lesson 12 : **8 03 Lect 11 Fourier Analysis Time Evolution of Pulses on Strings**

Lesson 13 : **8 03 Lect 12 Dispersion Phase Velocity Group Velocity**

Lesson 14 : **8 03 Lect 13 Electromagnetic Waves Solutions to Maxwell s Equations Polarization**

Lesson 15 : **8 03 Lect 14 Accelerated Charges Poynting Vector Power Rayleigh Scattering**

Lesson 16 : **8 03 Lect 15 Doppler Effect Big Bang Cosmology Neutron Stars Black Holes**

Lesson 17 : **8 03 Lect 16 Standing EM Waves Reflection Transmission Lines Rad Pressure**

Lesson 18 : **8 03 Lect 17 Wave Guides Resonance Cavities Great Sound Demo in Closed Box**

Lesson 19 : **8 03 Lect 18 Index of Refraction Reflection Fresnel Equations Brewster Angle**

Lesson 20 : **8 03 Lect 19 Second Exam Review**

Lesson 21 : **8 03 Lect 20 Interference Huygen s Principle Thin Films Double Slit Demo**

Lesson 22 : **8 03 Lect 21 Diffraction Gratings Spectral Angular Resolution Human Eye**

Lesson 23 : **8 03 Lect 22 Rainbows Coronae Glories Glass Bow Great Demos**

Lesson 24 : **8 03 Lect 23 Farewell Special My Early Years at MIT Balloon Astrophysics**

Related courses

Geography

Organic Chemistry

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