**Applied Physics Lab**

**Labs for Electrostatics**



# PhET - Charges and Fields

<https://youtu.be/kxylPBd6BvA>

<https://phet.colorado.edu/en/simulations/coulombs-law>

**Charging by Induction (revised, with narration)**

<https://youtu.be/qgr_qsTxr-0>

# Electric Fields and Electric Field Lines

<https://youtu.be/LB8Rhcb4eQM>

<https://phet.colorado.edu/en/simulations/charges-and-fields>

**Labs for Electrodynamics**

<https://phet.colorado.edu/en/simulations/ohms-law>

<https://phet.colorado.edu/en/simulations/resistance-in-a-wire>

**Labs for Magnetism**

# Plotting Magnetic Field Lines

# <https://www.youtube.com/watch?v=NWUgK8W-4JM>

# Motion of an Electric Charge in a Magnetic Field

<https://youtu.be/nH5OBfERHwc>

**Motion of particles in magnetic fields**

<https://www.youtube.com/watch?v=84ZTzeCfswg>

**Labs for Electromagnetism**

# Magnetic Field due to a Current Carrying Circular Coil

<https://www.youtube.com/watch?v=zyvipGRAwKw>

# Faraday's Law of electromagnetic induction

# <https://www.youtube.com/watch?v=Y18N-hi5P1o>

<https://phet.colorado.edu/en/simulations/faradays-law>

# Lenz's Law

https://www.youtube.com/watch?v=2\_M83gNOOEg

**Labs for Optics**

# Basic Properties of Waves

<https://youtu.be/jmYemuXCC6Y?si=jBn1QwTzA8IGsEQv>

<https://phet.colorado.edu/en/simulations/bending-light>

# Total Internal Reflection

<https://www.youtube.com/watch?v=NAaHPRsveJk>

<https://www.youtube.com/watch?v=PMidJZjlVUE>

