

CHAPTER OVERVIEW

5: Magnetism

Even though this chapter addresses a completely new type of electric charge interactions, their discussion (for the stationary case) will take not too much time/space, because it recycles many ideas and methods of electrostatics, though with a twist or two.

[5.1: Magnetic Interaction of Currents](#)

[5.2: Vector Potential and the Ampère Law](#)

[5.3: Magnetic Flux, Energy, and Inductance](#)

[5.4: Magnetic Dipole Moment and Magnetic Dipole Media](#)

[5.5: Magnetic Materials](#)

[5.6: Systems with Magnetism](#)

[5.7: Exercise Problems](#)

Thumbnail: Magnetic fields can be visualized with iron filings, that align along the magnetic field direction. Here the magnetic field of a homogeneously magnetized cylindrical bar magnet was accurately computed, and the field is shown with simulated randomly placed iron filings. The density of filings is also proportional to the field strength. The field is strongest around the magnetic poles. (CC BY-SA 4.0; [Geek3](#) via Wikipedia)

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