

Elen3000 Chapter 4 figs

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January 3, 2026

Note that the source code for the figs can be seen by clicking the pic. You will need to use your Browser's BACK button to return to this page.

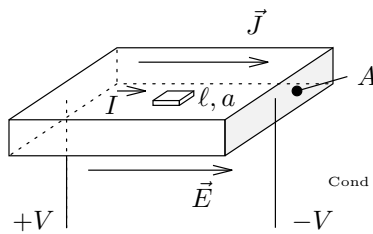


Figure 1: Current flow in a conductive slab

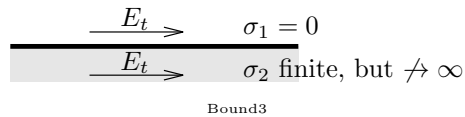


Figure 2: Tangential fields in a Conductor-Insulator boundary

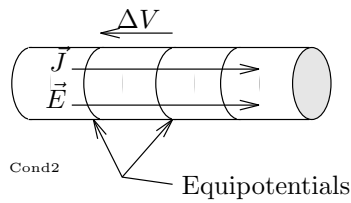


Figure 3: Finite conductivity in a long wire

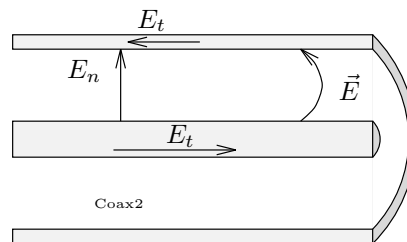


Figure 4: Finite conductivity in Coax

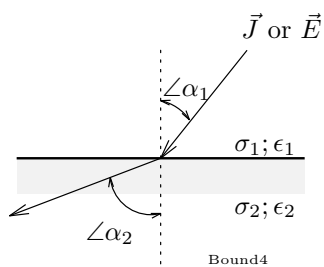


Figure 5: Currents at a conductor-conductor boundary

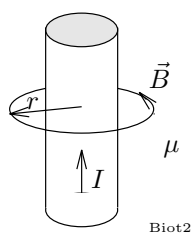


Figure 6: Flux density from current—Biot-Savart

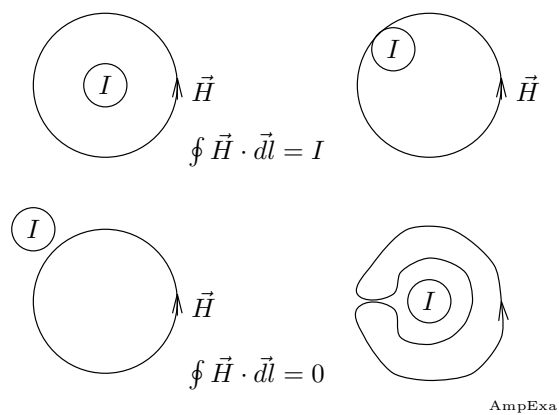


Figure 7: Ampère's Law of enclosing current

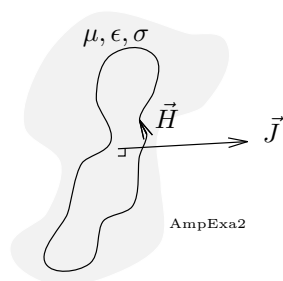


Figure 8: Ampère's Law in a general medium, along any path.

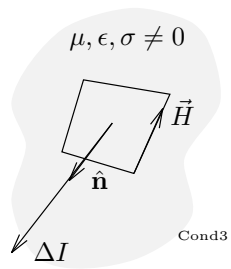


Figure 9: Conducting Medium with current flow in the direction of the normal vector of the integrating path

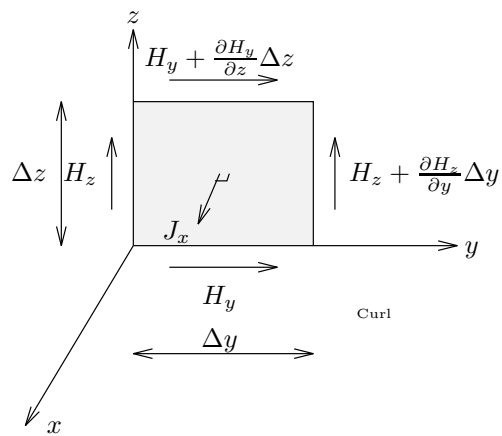


Figure 10: An incrementing field and Curl

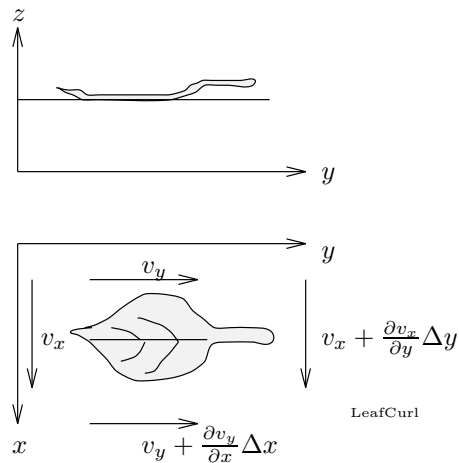


Figure 11: Physical interpretation of curl in a water field

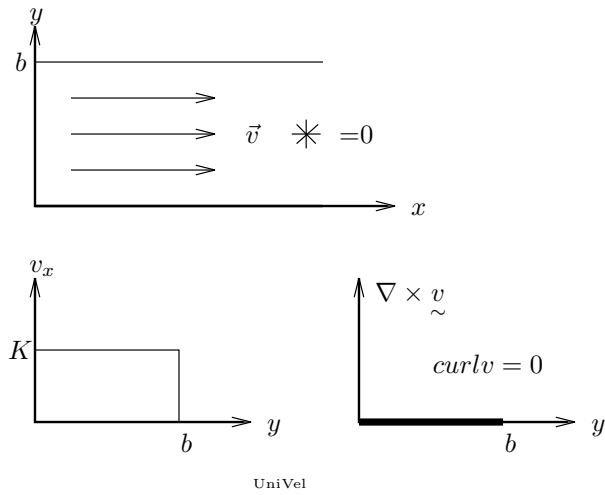


Figure 12: Uniform Velocity Field

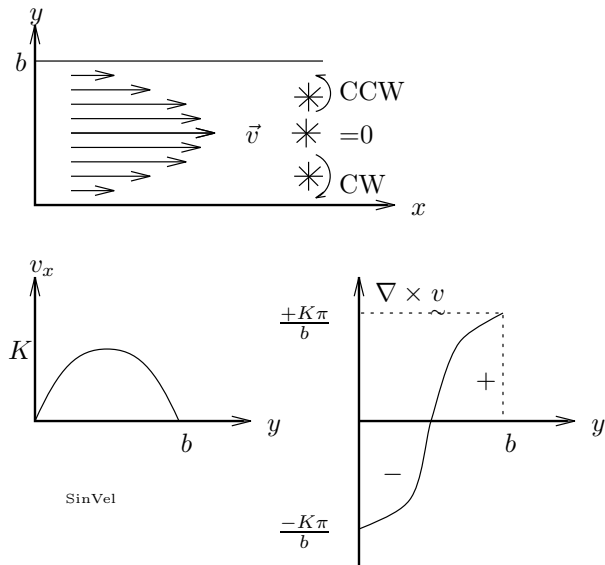


Figure 13: Sinusoidal Velocity Field

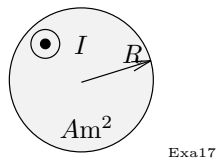


Figure 14: Uniform current density in a wire

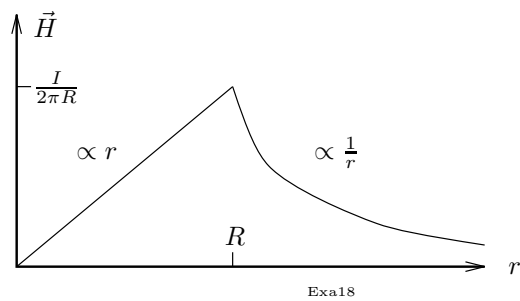


Figure 15: Magnetic flux as a function of r

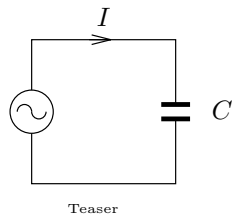


Figure 16: Current flow “through” a capacitor

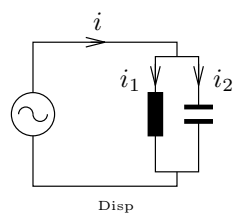


Figure 17: Displacement current (from the circuits perspective)

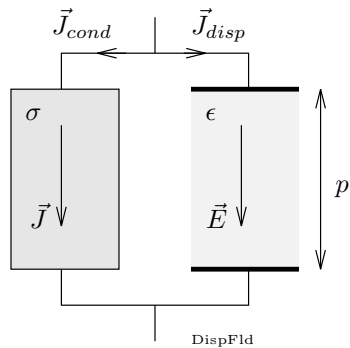


Figure 18: Displacement current (from the fields perspective)

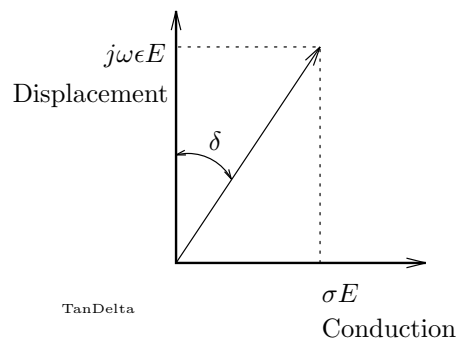


Figure 19: Loss Tangent, or $\tan \delta$

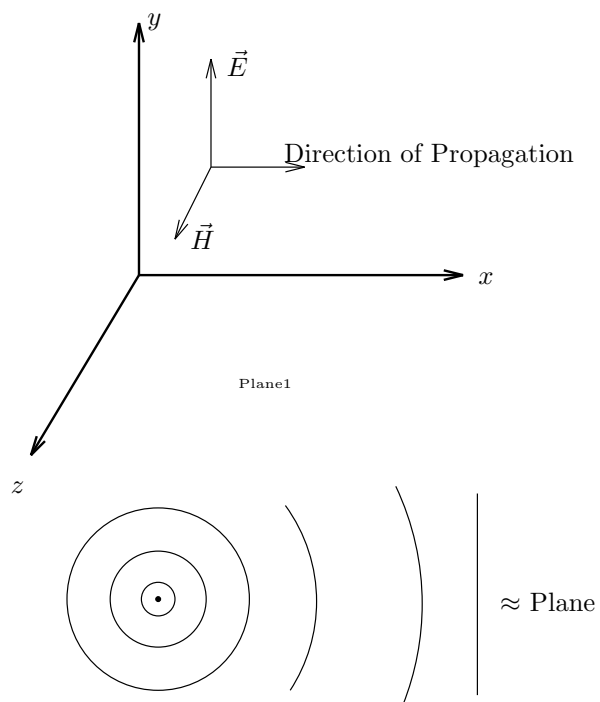


Figure 20: A Plane Wave

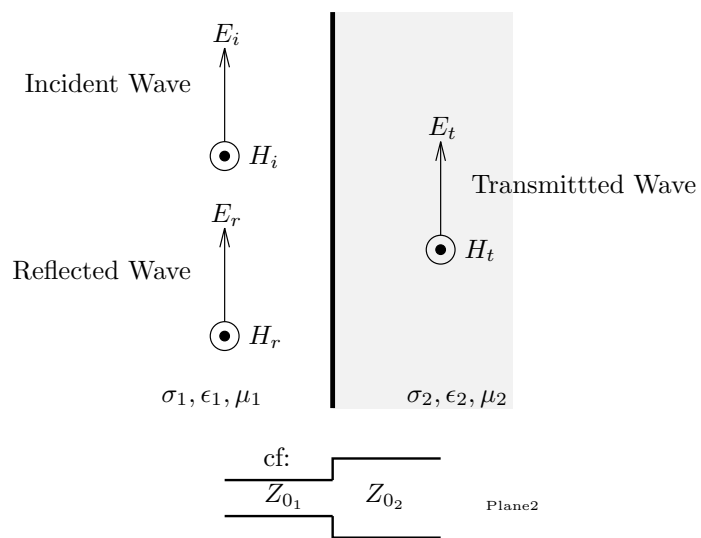


Figure 21: Plane Wave normally incident on boundary

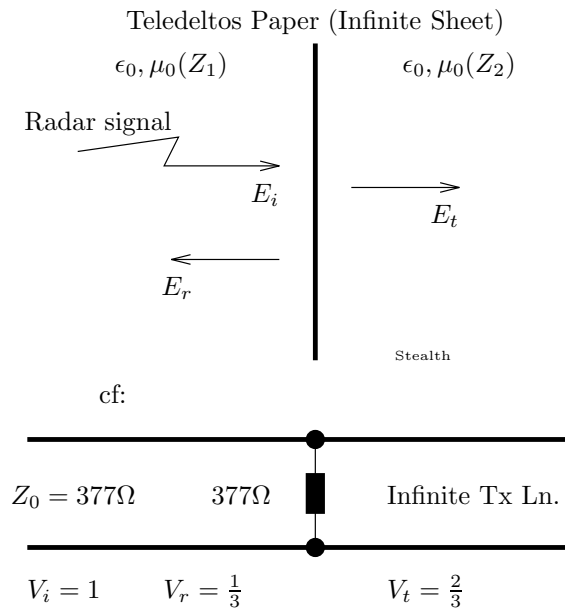


Figure 22: First attempt at zero Reflections

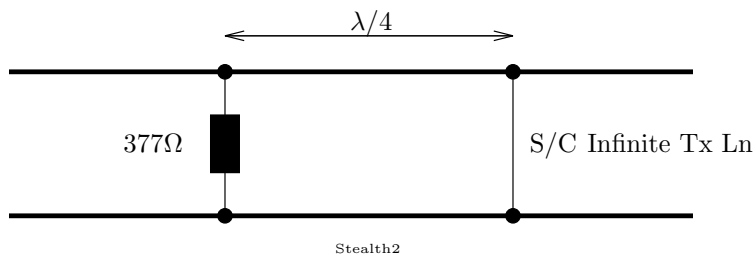


Figure 23: A short circuited plane behind the Teledeltos sheet