

Lec 18 -- Antenna Examples and Radiation Patterns

What is a dBi?

What is a radiation pattern?

What is beam width?

What is the difference between an isotropic radiation pattern and an omnidirectional pattern?

Sketch a dipole antenna, the voltage distribution along it, and the current distribution along it.

How does the feedpoint impedance of a dipole relate to the current and voltage distributions on the antenna?

How does the length of a dipole antenna relate to the wavelengths it radiates? To the frequencies it radiates?

Draw an equivalent circuit model for a dipole.

What is radiation resistance? How is it different from loss resistance? What is the radiation resistance of a short dipole and a $\lambda/2$ dipole?

How is the length of a dipole changed by capacitive loads? How does a monopole work?