Lecture 02 -- Near Field Probes, Waves and Distributed Circuit Models

What is a near field probe and how does it work?

What does a near field probe measure?

What is EMC?

How does cabling affect near field probe measurements?

How does impedance affect near field probe measurements?

How does digital switching activity affect near field probe measurements?
Show how Maxwell’s equations give rise to a wave equation.

What is the solution to a wave equation? How does that solution give rise to propagation?

What is the velocity of waves predicted by Maxwell’s equations? Express it in terms of dielectric constant and permeability.

What is meant by lumped circuit modeling? Distributed circuit modeling?

What is the boundary between the lumped and distributed domains? Why?