

List of potential topics for PHYS276 talks

- Heinrich Hertz and the discovery of electromagnetic waves.
- Marconi and the early history of radio broadcasting.
- How do AM and FM signal transmission differ? What are the advantages and drawbacks of each?
- How does a heterodyne receiver work?
- What is the ionospheric plasma and how does it affect radio transmission?
- How were sound, pictures and color encoded in analog television transmissions?
- How is high definition television transmitted and how did the switch to HD broadcasting affect the spectrum of available bandwidth?
- How does a crystal earpiece work? The device may also be used as a microphone.
- What is a vacuum tube (the predecessor to the transistor) and how does it work?
- How do cellular networks work and how are frequencies allocated?
- How do antennas work and how are they designed?