

Physics 8.03

Vibrations and Waves

Lecture 18
Interference

Last time: dielectrics

- Polarization and magnetization
 - defined index of refraction → n
 - modified Maxwell's equations
 - modified wave velocity → $v = c/n$
- Law of reflection and refraction (Snell)
 - Total internal reflection
 - Brewster's angle
- Reflection and transmission amplitudes

Interference

- Due to phase difference between two sources
 - Propagation phase + intrinsic phase
- Due to phase difference for single source propagating in media with different indices of refraction