

## Interferometry - Goals

Goals:

1. Set up a Michelson interferometer
2. Calibrate the electrostrictive actuator using the known HeNe laser wavelength (632.8 nm)
3. Use the calibrated actuator to measure the wavelengths of the green laser and the red diode laser.
4. Measure the coherence lengths of the green laser and red diode laser. Use this to determine the spectral bandwidth of the red diode laser.
5. Measure the refractive index of the glass microscope slide.
6. Measure the index of refraction of air using the air cell.

optional:

- 1) Try to find white light fringes.
- 2) Set up a Mach-Zehnder interferometer.