

# Homework 11

Lecture 12: Chapter 18 & 19 in *Lasers* by Siegman

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1. Suppose you have been assigned to prepare a demonstration for a school class, to show how cool Optics is. You plan to set up an experiment demonstrating the Poisson spot (spot of Arago), using whatever you have in your lab or office.
  - a. What components would you use, and how would you arrange the setup to impress the kids as much as possible with a clearly visible diffraction pattern and Poisson spot? Consider sizes, wavelengths, distances source-object-screen etc.
  - b. How would you explain the phenomenon (diffraction, Babinet's principle, the Poisson spot) to a 14-year old? Present it as a video or audio recording (e.g. using your phone) or, if you prefer, in text form. 3 minutes / 1 page maximum.
  
2. Problem 19.2.3. *Spot size adjustments in a near-hemispherical resonator.*