

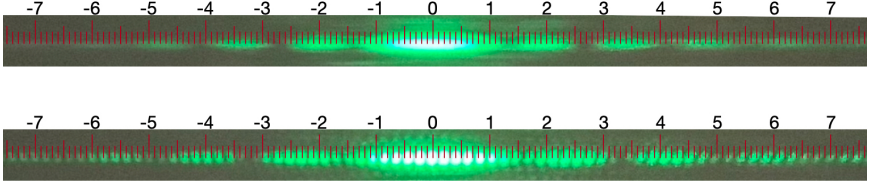
§ 1 Introduction

In this laboratory you will learn about interference of light waves. Please send your work and answers to the problems to your lab instructor.

§ 2 The observations

Watch [the lecture video for May 6](#) before going further with the lab.

The following photos were taken of the pattern created by a single and double slit when illuminated with light of wavelength 532nm. The observation screen where the pattern was observed was 100 centimeters from the slits. The photographs are overlaid with rulers which are marked in centimeters.



The photo can be found [here](#).

▷ PROBLEM 1

Which is the photograph of the double slit pattern?

▷ PROBLEM 2

Use the photograph of the single slit pattern to determine the width a of the slit.

▷ PROBLEM 3

Using the photograph of the double slit pattern to determine the width a of the slits, and the spacing d between the slits.