

Optics Simulation in Python

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1 Introduction

This document outlines the implementation of optics concepts using Python...

2 Theory

2.1 Extinction Ratio

The extinction ratio (ER) is a crucial metric in fiber optics defined as:

$$ER = \frac{P_{\max}}{P_{\min}}$$

where P_{\max} is the maximum power and P_{\min} is the minimum power.

3 Implementation

3.1 Calculate Extinction Ratio

The following Python code calculates the extinction ratio:

```
def calculate_extinction_ratio(P_max, P_min): """Calculate the extinction ratio.""" return P_max / P_min
```

4 Examples

Here is how to use the function:

5 References

- Author, Title, Year...