

# **8.02 Electricity and Magnetism Notes**

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## **Contents**

# 1 Electrostatics

## 1.1 Charge and Electric Forces (4/9/2025)

Charge unit: **Coloumb** (C)

2 Main Properties:

- Charge is quantized (some integer \* e)
- Charge is conserved

Like charges repel, opposites attract

**Electric Force** The electric force is between 2 particles given by:

$$\vec{E} = k \frac{qQ}{r^2} \hat{r} \quad (1)$$

where q and **Q** are the charges of the 2 particles