The Title

COURSE NAME

PROFESSOR

UNIVERSITY

LOGO NAME

Slogan Here

EDITED BY

ADITYA DEV

Contents

Chapter 1

A Nice Title

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§1.1 Here goes the section!

§1.1.1 And the subsection

Definition 1.1.1: DEF NAME

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Here is the nice looking Schrodinger's Equation [2]

$$i\hbar\frac{\partial}{\partial t}\Psi(\mathbf{r},t) = \left[\frac{-\hbar^2}{2m}\nabla^2 + V(\mathbf{r},t)\right]\Psi(\mathbf{r},t)$$

Theorem 1.1.1: THM NAME

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Proposition 1.1.1: PROP NAME

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[1] Here is an example footnote. LaTeX can be customized in many different ways

Lemma 1.1.1: LEM NAME

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Corollary 1.1.1: COR NAME

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Problem 1. *Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris.*

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§1.2 Mathematics and Images

Figure 1.1: We can add images too!! Isn't that good.

MAXWELL'S equations are a set of coupled partial differential equations that, together with the Lorentz force law, form the foundation of classical electromagnetism, classical optics, and electric circuits. The equations provide a mathematical model for electric, optical, and radio technologies, such as power generation, electric motors, wireless communication, lenses, radar etc. They describe how electric and magnetic fields are generated by charges, currents, and changes of the fields. The equations are named after the physicist and mathematician James Clerk Maxwell, who, in 1861 and 1862, published an early form of the equations that included the Lorentz force law. Maxwell first used the equations to propose that light is an electromagnetic phenomenon.

Here are the Maxwell's equations in the differential form

$$\begin{gathered}\nabla \cdot \mathbf{E} = \frac{\rho}{\varepsilon_0} \\ \nabla \cdot \mathbf{B} = 0 \\ \nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t} \\ \nabla \times \mathbf{B} = \mu_0 \left(\mathbf{J} + \varepsilon_0 \frac{\partial \mathbf{E}}{\partial t} \right)\end{gathered} \tag{1}$$

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[2] Paul Adrien Maurice Dirac. *The Principles of Quantum Mechanics*. International series of monographs on physics. Clarendon Press, 1981. ISBN: 9780198520115.

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