

20.1: Introduction

Maxwell's equations are the fundamental equations that, along with the Lorentz force law, describe classical electrodynamics [1]. It provides a basis for electric and magnetic circuits as well as classical optics. They are named for James Clerk Maxwell [2], who, in 1861 and 1862, published an early form of the equations that included the Lorentz force law. This chapter describes the four equations, which are usually called Gauss's Law, Gauss's Law for Magnetism, Faraday's Law, and the Ampère-Maxwell Law. It then describes some of the implications of these equations, including plane electromagnetic waves and momentum and radiation pressure.

References

1. Wikipedia contributors. [Maxwell's equations](#) [Internet]. Wikipedia, The Free Encyclopedia.
 2. Wikipedia contributors. [James Clerk Maxwell](#) [Internet]. Wikipedia, The Free Encyclopedia.
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