



# Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills

*Thomas A. Garrity*

Download now

[Click here](#) if your download doesn't start automatically

# Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills

*Thomas A. Garrity*

## **Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills** Thomas A. Garrity

This text is an introduction to some of the mathematical wonders of Maxwell's equations. These equations led to the prediction of radio waves, the realization that light is a type of electromagnetic wave, and the discovery of the special theory of relativity. In fact, almost all current descriptions of the fundamental laws of the universe can be viewed as deep generalizations of Maxwell's equations. Even more surprising is that these equations and their generalizations have led to some of the most important mathematical discoveries of the past thirty years. It seems that the mathematics behind Maxwell's equations is endless. The goal of this book is to explain to mathematicians the underlying physics behind electricity and magnetism and to show their connections to mathematics. Starting with Maxwell's equations, the reader is led to such topics as the special theory of relativity, differential forms, quantum mechanics, manifolds, tangent bundles, connections, and curvature.

 [Download Electricity and Magnetism for Mathematicians: A Gu ...pdf](#)

 [Read Online Electricity and Magnetism for Mathematicians: A ...pdf](#)

## **Download and Read Free Online Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills Thomas A. Garrity**

---

### **From reader reviews:**

#### **Ruth McGrath:**

What do you concerning book? It is not important together with you? Or just adding material when you really need something to explain what your own problem? How about your time? Or are you busy particular person? If you don't have spare time to try and do others business, it is make you feel bored faster. And you have extra time? What did you do? All people has many questions above. They should answer that question because just their can do that. It said that about e-book. Book is familiar in each person. Yes, it is appropriate. Because start from on guardería until university need that Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills to read.

#### **Nancy Lord:**

Nowadays reading books become more and more than want or need but also be a life style. This reading practice give you lot of advantages. Advantages you got of course the knowledge the actual information inside the book this improve your knowledge and information. The knowledge you get based on what kind of e-book you read, if you want have more knowledge just go with knowledge books but if you want sense happy read one with theme for entertaining for example comic or novel. The Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills is kind of reserve which is giving the reader unforeseen experience.

#### **Sharon Hafer:**

Reading a book tends to be new life style on this era globalization. With examining you can get a lot of information that will give you benefit in your life. Using book everyone in this world may share their idea. Textbooks can also inspire a lot of people. Lots of author can inspire their very own reader with their story or maybe their experience. Not only situation that share in the books. But also they write about the ability about something that you need example of this. How to get the good score toefl, or how to teach children, there are many kinds of book that exist now. The authors on earth always try to improve their talent in writing, they also doing some study before they write with their book. One of them is this Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills.

#### **Michael Ogden:**

In this particular era which is the greater particular person or who has ability in doing something more are more treasured than other. Do you want to become one among it? It is just simple method to have that. What you are related is just spending your time little but quite enough to have a look at some books. One of the books in the top collection in your reading list is Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills. This book that is qualified as The Hungry Hillside can get you closer in growing to be precious person. By looking right up and review this e-book you can get many advantages.

**Download and Read Online Electricity and Magnetism for  
Mathematicians: A Guided Path from Maxwell's Equations to  
Yang-Mills Thomas A. Garrity #PTL8S3QUZ47**

## **Read Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills by Thomas A. Garrity for online ebook**

Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills by Thomas A. Garrity Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills by Thomas A. Garrity books to read online.

### **Online Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills by Thomas A. Garrity ebook PDF download**

#### **Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills by Thomas A. Garrity Doc**

**Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills by Thomas A. Garrity Mobipocket**

**Electricity and Magnetism for Mathematicians: A Guided Path from Maxwell's Equations to Yang-Mills by Thomas A. Garrity EPub**