

# Solved Problems in Classical Electromagnetism

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## Preface

This book of solved problems is meant to serve and help several types of student. If you are taking, or have already taken an advanced EM course, this book is meant to be a useful adjunct to your textbook, giving you added practice in working out problems. If you have taken an undergraduate EM course, and want to prepare yourself for graduate school, I hope this book can help you achieve that aim by preparing for the GRE, or whatever test, and getting ready for graduate work. I also think beginners, or students not even taking a course at the moment, can get into these problems and learn just from working on them with the help of my solutions.

I think this book can be useful for students on several levels. At least, that is my intention. If you just want to develop your skills, even if on your own, I think with serious work on your part, this book can help you in that. The book includes a number of ‘review’ sections to prepare students without previous advanced training to work out the problems.

A bit of advice on how use this book to your benefit:

There are two types of problems included. Some are derivations, that often will be done from a point of view you may not have seen before. You should ‘do’ these problems by thinking about them, then starting to do them on your own, but looking over my approach before you get too bogged down.

Most of the problems are real problems with calculations to work out. Work long and hard on these problems before going to my solution.