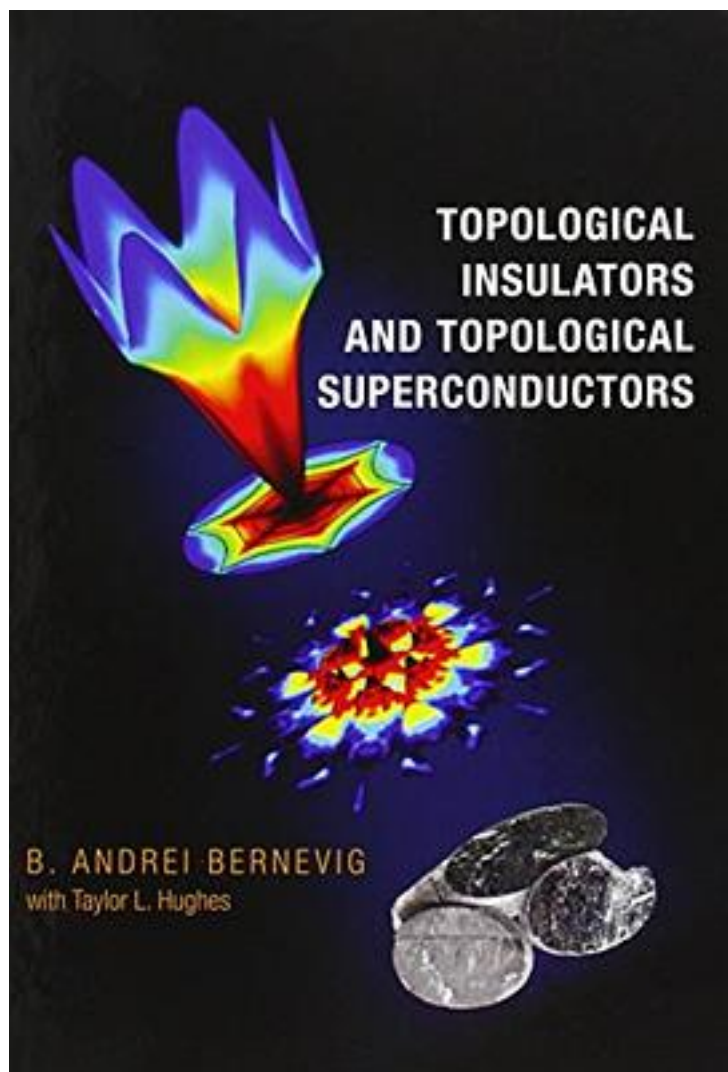


# Topological Insulators and Topological Superconductors



[Topological Insulators and Topological Superconductors 下载链接1](#)

著者:B. Andrei Bernevig

出版者:Princeton University Press

出版时间:2013-4-7

装帧:Hardcover

isbn:9780691151755

This graduate-level textbook is the first pedagogical synthesis of the field of topological insulators and superconductors, one of the most exciting areas of research in condensed matter physics. Presenting the latest developments, while providing all the calculations necessary for a self-contained and complete description of the discipline, it is ideal for graduate students and researchers preparing to work in this area, and it will be an essential reference both within and outside the classroom. The book begins with simple concepts such as Berry phases, Dirac fermions, Hall conductance and its link to topology, and the Hofstadter problem of lattice electrons in a magnetic field. It moves on to explain topological phases of matter such as Chern insulators, two- and three-dimensional topological insulators, and Majorana p-wave wires. Additionally, the book covers zero modes on vortices in topological superconductors, time-reversal topological superconductors, and topological responses/field theory and topological indices. The book also analyzes recent topics in condensed matter theory and concludes by surveying active subfields of research such as insulators with point-group symmetries and the stability of topological semimetals. Problems at the end of each chapter offer opportunities to test knowledge and engage with frontier research issues. Topological Insulators and Topological Superconductors will provide graduate students and researchers with the physical understanding and mathematical tools needed to embark on research in this rapidly evolving field.

作者介绍:

目录:

[Topological Insulators and Topological Superconductors 下载链接1](#)

## 标签

拓扑绝缘体

凝聚态物理

物理

拓扑超导体

物理学

固体物理

【教材】

## 评论

The book is not proofread, way too many typos in equations and inconsistencies in sentences. It is obvious that the author (Bernevig!) didn't even spend the time to read it twice to double check for errors. This book shouldn't have been published because of poor editing. On the contents side, topics could have been arranged in a better way.

-----  
Bernevig大佬必须墙裂推荐啊!!! 跟着这本书一步一步推导了大概前2/3部分, 拓扑绝缘体领域入门的第一本也是最好的一本书! 其它评论也指出了, 书中的确有不少typos甚至是个别错误, 需要小心。

-----  
So far the fastest and easiste material to study TI for beginners

-----  
I buy one, as a fan of bernevig.

-----  
[Topological Insulators and Topological Superconductors\\_下载链接1](#)

## 书评

It is obvious that the author did not spend too much time on this book. 1) Although the book is printed in black and white, it seems that it should be color printed. There are texts such as “represented by the color red in figure 7.5.” “In this, and a...

-----

