



# The Schrödinger Equation (Mathematics and its Applications)

By F. A. Berezin, M.A. Shubin

Download now

Read Online ➔

**The Schrödinger Equation (Mathematics and its Applications)** By F. A. Berezin, M.A. Shubin

This volume deals with those topics of mathematical physics, associated with the study of the Schrödinger equation, which are considered to be the most important.

Chapter 1 presents the basic concepts of quantum mechanics. Chapter 2 provides an introduction to the spectral theory of the one-dimensional Schrödinger equation. Chapter 3 opens with a discussion of the spectral theory of the multi-dimensional Schrödinger equation, which is a far more complex case and requires careful consideration of aspects which are trivial in the one-dimensional case. Chapter 4 presents the scattering theory for the multi-dimensional non-relativistic Schrödinger equation, and the final chapter is devoted to quantization and Feynman path integrals. These five main chapters are followed by three supplements, which present material drawn on in the various chapters. The first two supplements deal with general questions concerning the spectral theory of operators in Hilbert space, and necessary information relating to Sobolev spaces and elliptic equations. Supplement 3, which essentially stands alone, introduces the concept of the supermanifold which leads to a more natural treatment of quantization.

Although written primarily for mathematicians who wish to gain a better awareness of the physical aspects of quantum mechanics and related topics, it will also be useful for mathematical physicists who wish to become better acquainted with the mathematical formalism of quantum mechanics. Much of the material included here has been based on lectures given by the authors at Moscow State University, and this volume can also be recommended as a supplementary graduate level introduction to the spectral theory of differential operators with both discrete and continuous spectra.

This English edition is a revised, expanded version of the original Soviet publication.

 [Download The Schrödinger Equation \(Mathematics and its App ...pdf](#)

 [Read Online The Schrödinger Equation \(Mathematics and its A ...pdf](#)



# The Schrödinger Equation (Mathematics and its Applications)

*By F. A. Berezin, M.A. Shubin*

**The Schrödinger Equation (Mathematics and its Applications)** By F. A. Berezin, M.A. Shubin

This volume deals with those topics of mathematical physics, associated with the study of the Schrödinger equation, which are considered to be the most important.

Chapter 1 presents the basic concepts of quantum mechanics. Chapter 2 provides an introduction to the spectral theory of the one-dimensional Schrödinger equation. Chapter 3 opens with a discussion of the spectral theory of the multi-dimensional Schrödinger equation, which is a far more complex case and requires careful consideration of aspects which are trivial in the one-dimensional case. Chapter 4 presents the scattering theory for the multi-dimensional non-relativistic Schrödinger equation, and the final chapter is devoted to quantization and Feynman path integrals. These five main chapters are followed by three supplements, which present material drawn on in the various chapters. The first two supplements deal with general questions concerning the spectral theory of operators in Hilbert space, and necessary information relating to Sobolev spaces and elliptic equations. Supplement 3, which essentially stands alone, introduces the concept of the supermanifold which leads to a more natural treatment of quantization.

Although written primarily for mathematicians who wish to gain a better awareness of the physical aspects of quantum mechanics and related topics, it will also be useful for mathematical physicists who wish to become better acquainted with the mathematical formalism of quantum mechanics. Much of the material included here has been based on lectures given by the authors at Moscow State University, and this volume can also be recommended as a supplementary graduate level introduction to the spectral theory of differential operators with both discrete and continuous spectra.

This English edition is a revised, expanded version of the original Soviet publication.

**The Schrödinger Equation (Mathematics and its Applications)** By F. A. Berezin, M.A. Shubin  
**Bibliography**

- Rank: #3786053 in Books
- Brand: Brand: Springer
- Published on: 1991-05-31
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x 1.25" w x 6.14" l, 2.54 pounds
- Binding: Hardcover
- 555 pages

 [Download The Schrödinger Equation \(Mathematics and its App ...pdf](#)

 [Read Online The Schrödinger Equation \(Mathematics and its A ...pdf](#)



## **Editorial Review**

### **Review**

' ....interest to both mathematicians and physicists; Highly recommended.' **Mathematika** 39 1992

### **Language Notes**

Text: English (translation)

Original Language: Russian

## **Users Review**

### **From reader reviews:**

#### **Edward Apodaca:**

Reading a guide tends to be new life style with this era globalization. With studying you can get a lot of information that could give you benefit in your life. Along with book everyone in this world could share their idea. Guides can also inspire a lot of people. A great deal of author can inspire all their reader with their story as well as their experience. Not only the story that share in the textbooks. But also they write about the information about something that you need instance. How to get the good score toefl, or how to teach your sons or daughters, there are many kinds of book which exist now. The authors on earth always try to improve their ability in writing, they also doing some research before they write to their book. One of them is this The Schrödinger Equation (Mathematics and its Applications).

#### **Alberto Redden:**

The reason? Because this The Schrödinger Equation (Mathematics and its Applications) is an unordinary book that the inside of the publication waiting for you to snap the item but latter it will jolt you with the secret that inside. Reading this book beside it was fantastic author who write the book in such awesome way makes the content inside easier to understand, entertaining way but still convey the meaning fully. So , it is good for you because of not hesitating having this any longer or you going to regret it. This unique book will give you a lot of positive aspects than the other book include such as help improving your ability and your critical thinking method. So , still want to hold up having that book? If I had been you I will go to the publication store hurriedly.

#### **Daniel Adams:**

You can spend your free time to read this book this e-book. This The Schrödinger Equation (Mathematics and its Applications) is simple to create you can read it in the park your car, in the beach, train in addition to soon. If you did not possess much space to bring typically the printed book, you can buy typically the e-book. It is make you much easier to read it. You can save typically the book in your smart phone. Thus there are a lot of benefits that you will get when one buys this book.

**Ernestine Pagan:**

Many people spending their time by playing outside having friends, fun activity with family or just watching TV the entire day. You can have new activity to pay your whole day by looking at a book. Ugh, think reading a book can actually hard because you have to take the book everywhere? It ok you can have the e-book, taking everywhere you want in your Touch screen phone. Like The Schrödinger Equation (Mathematics and its Applications) which is obtaining the e-book version. So , why not try out this book? Let's find.

**Download and Read Online The Schrödinger Equation  
(Mathematics and its Applications) By F. A. Berezin, M.A. Shubin  
#H0M1O2SXB3D**

# **Read The Schrödinger Equation (Mathematics and its Applications)**

## **By F. A. Berezin, M.A. Shubin for online ebook**

The Schrödinger Equation (Mathematics and its Applications) By F. A. Berezin, M.A. Shubin 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 The Schrödinger Equation (Mathematics and its Applications) By F. A. Berezin, M.A. Shubin books to read online.

## **Online The Schrödinger Equation (Mathematics and its Applications) By F. A. Berezin, M.A. Shubin ebook PDF download**

**The Schrödinger Equation (Mathematics and its Applications) By F. A. Berezin, M.A. Shubin Doc**

**The Schrödinger Equation (Mathematics and its Applications) By F. A. Berezin, M.A. Shubin Mobipocket**

**The Schrödinger Equation (Mathematics and its Applications) By F. A. Berezin, M.A. Shubin EPub**

**H0M1O2SXB3D: The Schrödinger Equation (Mathematics and its Applications) By F. A. Berezin, M.A. Shubin**