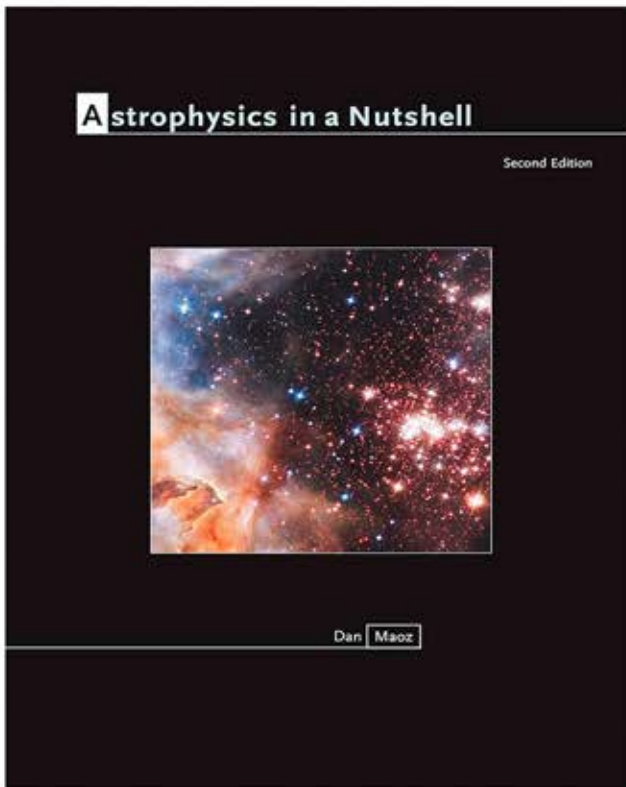


Boletín de Adquisiciones Octubre 2023 Parte 1

Astrophysics in a Nutshell
Dan Maoz
Second Edition



Contents

Preface
Constants and Units
1 Introduction
3 Stellar Physics
4 Stellar Evolution and Stellar Remnants
5 Star Formation and the Interstellar Medium
6 Extrasolar Planets
7 The Milky Way and Other Galaxies
8 Cosmology: Basic Observations
9 Big Bang Cosmology
10 Tests and Probes of Big Bang Cosmology

Classical Mechanics
Contributors Federico Petrovich, George H. Goedecke et al.

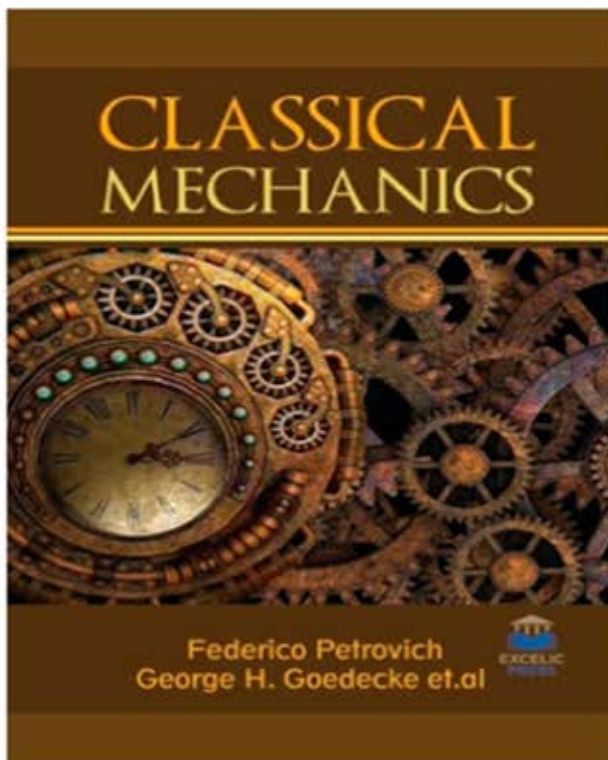
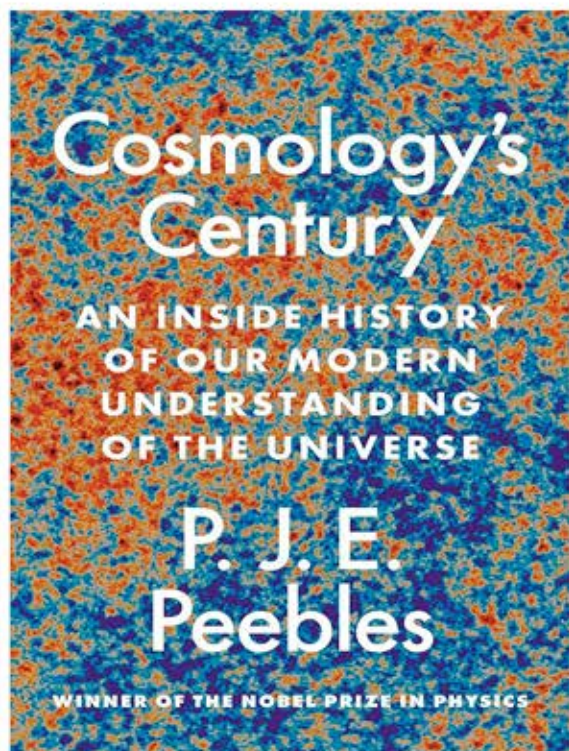


Table of Contents

Chapter 1	A New Formulation of Classical Mechanics-Part 1
Chapter 2	A New Formulation of Classical Mechanics-Part 2
Chapter 3	Statistical Description of Nonrelativistic Classical Systems
Chapter 4	Zitterbewegung and the Electron
Chapter 5	Non-Linearity of Dynamics of the Non-Equilibrium Systems
Chapter 6	The Mechanics of Gravitation- What It Is; How It Operates
Chapter 7	Classical and Quantum Conjugate Dynamics- The Interplay Between Conjugate Variables
Chapter 8	Statistical Mechanics That Takes into Account Angular Momentum Conservation Law-Theory and Application
Chapter 9	Intuitive Concept or Physical Meaning of Lograngian
Chapter 10	Complementarity in Quantum Mechanics and Classical Statistical Mechanics
Chapter 11	Introducing the Paraquantum Equations and Applications

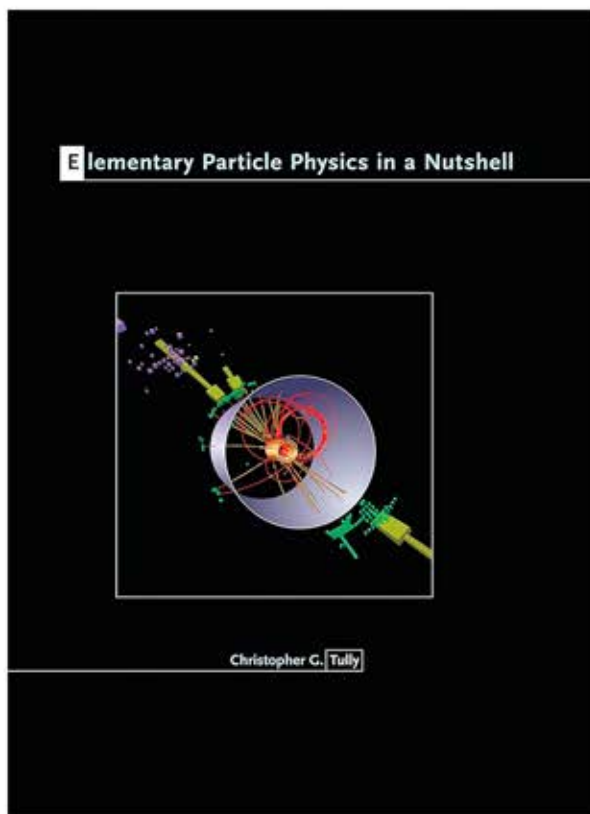
Cosmology's Century: An Inside History of Our Modern Understanding of the Universe
P. J. E. Peebles



Contents

- Chapter 1 Introduction**
- Chapter 2 The Homogeneous Universe**
- Chapter 3 Cosmological Models**
- Chapter 4 Fossils: Microwave Radiation and Light Elements**
- Chapter 5 How Cosmic Structure Grew**
- Chapter 6 Subluminal Mass**
- Chapter 7 Nonbaryonic Dark Matter**
- Chapter 8 The Age of Abundance of Cosmological Models**
- Chapter 9 The 1998-2003 Revolution**
- Chapter 10 The Ways of Research**

Elementary Particle Physics in a Nutshell
Christopher G. Tully

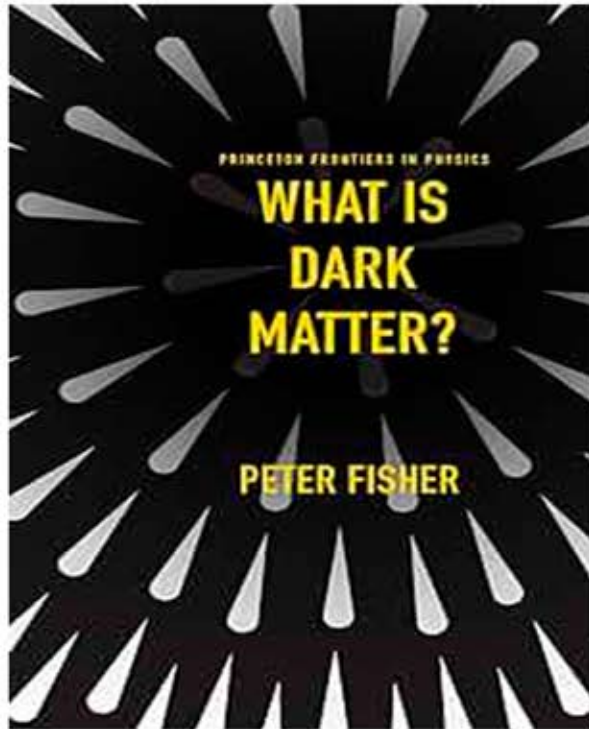


Contents

- 1 Particle Physics: A Brief Overview**
- 2 Dirac Equation and Quantum Electrodynamics**
- 3 Gauge Principle**
- 4 Hadrons**
- 5 Detectors and Measurements**
- 6 Neutrino Oscillations and CKM Measurements**
- 7 e^+e^- Collider Physics**
- 8 Hadron Colliders**
- 9 Higgs Physics**

What Is Dark Matter?

Peter Fisher



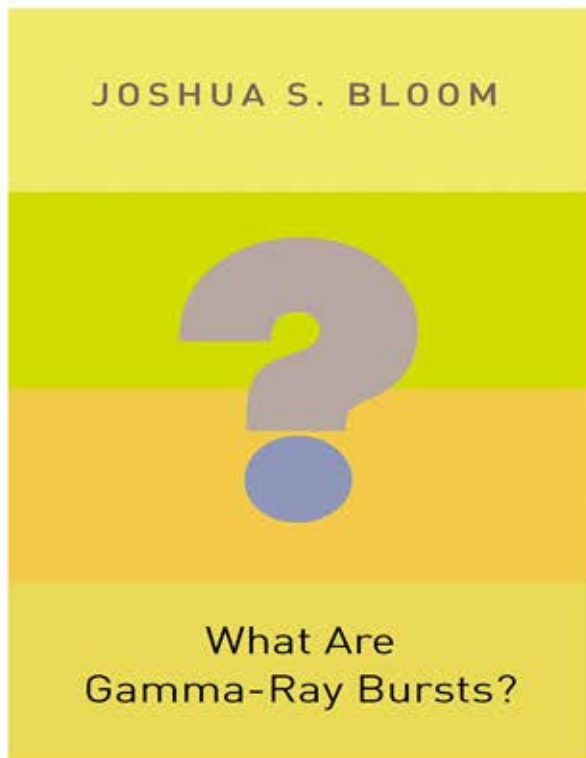
Contents

INTRODUCTION: THE MATTER PROBLEM

1. SOME BACKGROUND
2. EVIDENCE FOR DARK MATTER FROM ASTRONOMY
3. NORMAL MATTER: THE STANDARD MODEL
4. WHAT DARK MATTER IS NOT
5. SEARCHING FOR WIMPS ON EARTH
6. SEARCHING

What Are Gamma-Ray Bursts?

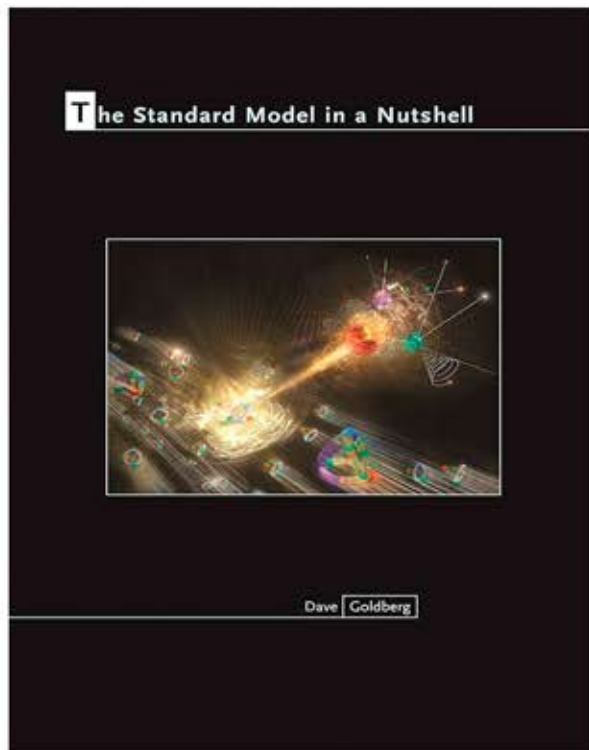
Joshua S. Bloom



Contents

- 1 Introduction
- 2 Into the Belly of the Beast
- 3 Afterglows
- 4 The Events in Context
- 5 The Progenitors of Gamma-Ray Bursts
- 6 The Progenitors of Gamma-Ray Bursts of the Universe

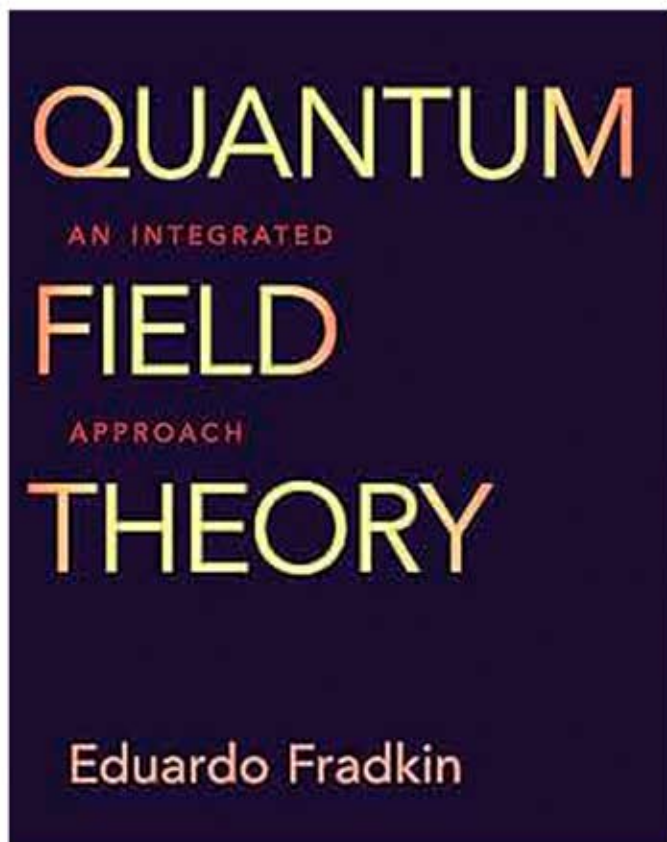
The Standard Model in a Nutshell
Dave Goldberg



Contents

- 1 Special Relativity**
- 2 Scalar Fields**
- 3 Noether's Theorem**
- 4 Symmetry**
- 5 The Dirac Equation**
- 6 Electromagnetism**
- 7 Quantum Electrodynamics**
- 8 The Weak Interaction**
- 9 Electroweak Unification**
- 10 Particle Mixing**
- 11 The Strong Interaction**
- 12 Beyond the Standard Model**

Quantum Field Theory: An Integrated Approach
Eduardo Fradkin



Contents

- 1 Introduction to Field Theory**
- 2 Classical Field Theory**
- 3 Classical Symmetries and Conservation Laws**
- 4 Canonical Quantization**
- 5 Path Integrals in Quantum Mechanics and Quantum Field Theory**
- 6 Nonrelativistic Field Theory**
- 7 Quantization of the Free Dirac Field**
- 8 Coherent-State Path-Integral Quantization of Quantum Field Theory**
- 9 Quantization of Gauge Fields**
- 10 Observables and Propagators**
- 11 Perturbation Theory and Feynman Diagrams**
- 12 Vertex Functions, the Effective Potential, and Symmetry Breaking**
- 13 Perturbation Theory, Regularization, and Renormalization**
- 14 Quantum Field Theory and Statistical Mechanics**
- 15 The Renormalization Group**
- 16 The Perturbative Renormalization Group**
- 17 The $1/N$ Expansions**
- 18 Phases of Gauge Theories**
- 19 Instantons and Solitons**
- 20 Anomalies in Quantum Field Theory**
- 21 Conformal Field Theory**
- 22 Topological Field Theory**

Flight Dynamics
Robert F. Stengel
Second Edition

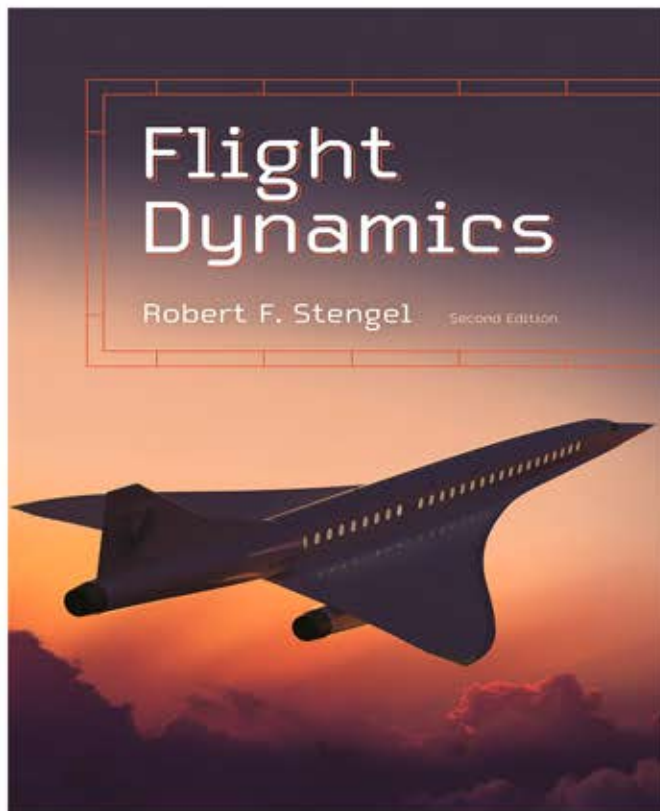
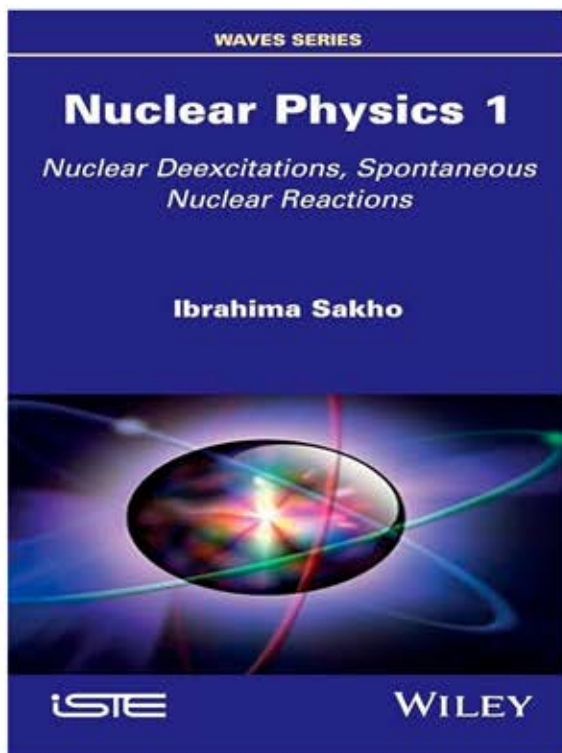


Table of Contents

- Chapter 1 Introduction**
- Chapter 2 Exploring the Flight Envelope**
- Chapter 3 The Dynamics of Aircraft Motion**
- Chapter 4 Methods of Analysis and Design**
- Chapter 5 Longitudinal Motions**
- Chapter 6 Lateral-Directional Motions**
- Chapter 7 Coupled Longitudinal and Lateral-Directional Motions**
- Chapter 8 Flight Control Design**
- Chapter 9 Epilogue**

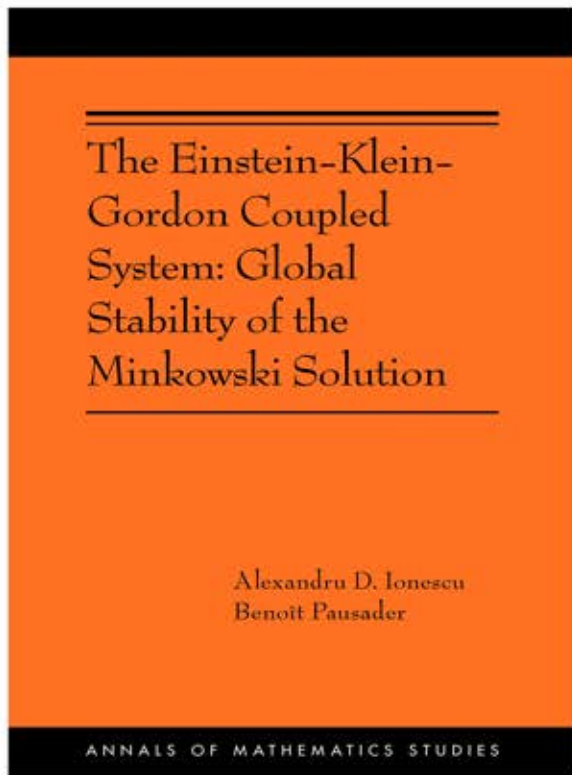
Nuclear Physics 1: Nuclear Deexcitations, Spontaneous Nuclear Reactions
Ibrahima Sakho



Contents

- Chapter 1 Overview of the Nucleus**
- Chapter 2 Nuclear Deexcitations**
- Chapter 3 Alpha Radioactivity**
- Chapter 4 Beta Radioactivity, Radioactive Family Tree**

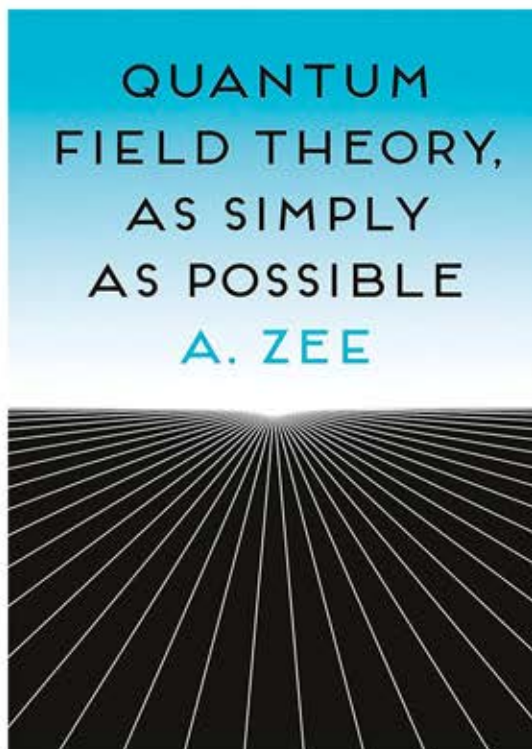
The Einstein-Klein-Gordon Coupled System: Global Stability of the Minkowski Solution
Alexandru D. Ionescu and Benoît Pausader



Contents

- 1 Introduction**
- 2 The Main Construction and Outline of the Proof**
- 3 Preliminary Estimates**
- 4 The Nonlinearities $N_{\alpha\beta}$ and N_{ψ}**
- 5 Improved Energy Estimates**
- 6 Improved Profile Bounds**
- 7 The Main Theorems**

Quantum Field Theory, as Simply as Possible
Anthony Zee



Contents

- I Our physical world**
- II The road to quantum field theory**
- III Becoming a quantum field theorist**
- IV A universo of fields**
- V Quantum field theory and the four fundamental interactions**
- VI Quantum field theory is more intellectually complete than quantum mechanics**

Statistical and Thermal Physics: With Computer Applications, Second Edition
Harvey Gould and Jan Tobochnik

Statistical & Thermal Physics

With Computer Applications

Second Edition

Harvey Gould & Jan Tobochnik



Contents

- 1 From Microscopic to Macroscopic Behavior
- 2 Thermodynamic Concepts and Processes
- 3 Concepts of Probability
- 4 Methodology of Statistical Mechanics
- 5 Magnetic Systems
- 6 Many-Particle Systems
- 7 The Chemical Potential and Phase Equilibria
- 8 Classical Gases and Liquids
- 9 Critical Phenomena: Landau Theory and the Renormalization Group Method
- 10 It Is About Time: Time-Dependent Phenomena

Patterns, Predictions, and Actions: Foundations of Machine Learning
Moritz Hardt and Benjamin Recht

PATTERNS, PREDICTIONS, AND ACTIONS

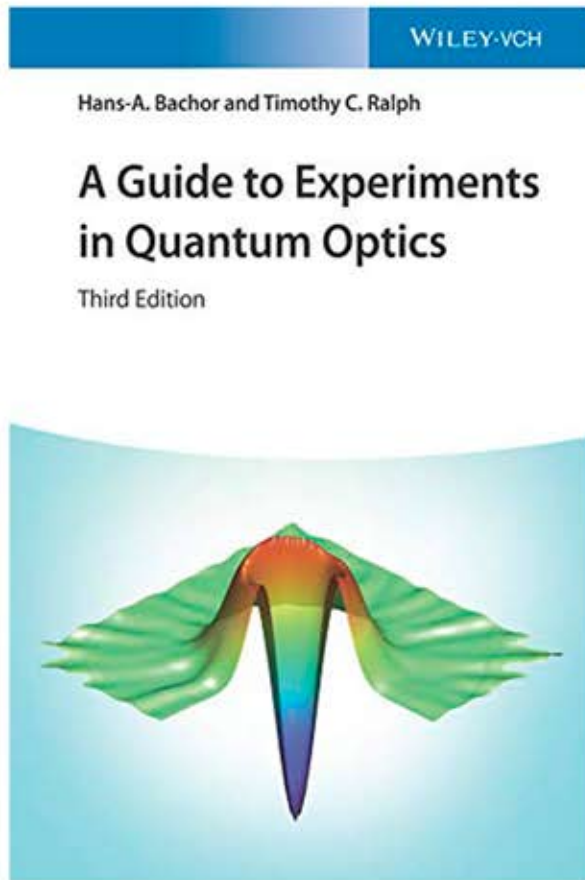
Foundations of Machine Learning



Moritz Hardt
Benjamin Recht

Contents

- 1 Introduction
- 2 Fundamentals of Prediction
- 3 Supervised Learning
- 4 Representations and Features
- 5 Optimization
- 6 Generalization
- 7 Deep Learning
- 8 Datasets
- 9 Causality
- 10 Causal Inference in Practice
- 11 Sequential Decision Making and Dynamic Programming
- 12 Reinforcement Learning
- 13 Epilogue
- 14 Mathematical Background



Contents

- 1 Introduction**
- 2 Classical Models of Light**
- 3 Photons: The Motivation to Go Beyond Classical Optics**
- 4 Quantum Models of Light**
- 5 Basic Optical Components**
- 6 Lasers and Amplifiers**
- 7 Photon Generation and Detection**
- 8 Quantum Noise: Basic Measurements and Techniques**
- 9 Squeezed Light**
- 10 Applications of Quantum Light**
- 11 QND**
- 12 Fundamental Tests of Quantum Mechanics**
- 13 Quantum Information**
- 14 The Future: From Q-demonstrations to Q-technologies**