

1. Record Nr.	UNINA9911093601703321
Autore	Schommers Wolfram <1941->
Titolo	Cosmic secrets : basic features of reality / / Wolfram Schommers
Pubbl/distr/stampa	Singapore ; ; Hackensack, N.J., : World Scientific, c2012
ISBN	9786613555243 9781280354403 1280354402 9789812836441 9812836446
Edizione	[1st ed.]
Descrizione fisica	1 online resource (400 p.)
Disciplina	501 523.1
Soggetti	Cosmology Space and time Quantum cosmology Quantum theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 369-371) and index.
Nota di contenuto	Foreword; Contents; 1. The Absolute Truth; 1.1 Final Truth; 1.2 Two Important Questions; 1.3 Why Does the Cosmos Exist?; 1.4 Are the Laws of Nature Independent of the Observer's Own Nature?; 1.5 Self-Indulgence was Dominant; 1.6 Newton's Mechanics and Its Overestimation; 1.6.1 Instead of Gods, Capricious Fairies etc. We Have the Equations of Motion; 1.6.2 Lamettrie and the Monistic Picture of Man; 1.6.3 Conclusion; 1.7 Scientific Realism; 1.8 An Important Principle: As Little Outside World as Possible; 1.9 Inside World and Outside World; 1.9.1 One-to-One Correspondence? 1.9.2 Cinema and Cinema Ticket1.9.3 Summary; 1.10 Principal Questions; 1.10.1 Are Picture-Independent Physical Considerations Possible?; 1.10.2 Why Do We and the Cosmos Exist?; 1.11 How Does Science Progress?; 1.11.1 Science Progresses by Eliminating the Number of Unanswered Questions; 1.11.2 Principle of Propagation of Questions; 1.11.3 Substitution Instead of Successive Refinement;

1.11.4 Summary; 1.12 Final Remarks; 2. The Projection Principle; 2.1 The Elements of Space and Time; 2.2 Relationship between Matter and Space-Time; 2.3 Two Relevant Features; 2.3.1 Feature 1; 2.3.2 Feature 2
 2.4 Two Kinds of "Objects" 2.5 Perception Processes; 2.5.1 The Experiment with Inverting Goggles; 2.5.2 Space and Time Come into Existence by Specific Brain Functions; 2.6 Inside World and Outside World; 2.7 The Influence of Evolution; 2.8 Information in the Picture Versus Information in Basic Reality (Outside Reality); 2.9 Other Biological Systems; 2.10 How Many (Geometrical) Objects can be in Space-Time?; 2.11 Two Types of Space-Time?; 2.12 Summary; 3. Fictitious Realities; 3.1 Conventional Quantum Theory: Critical Remarks; 3.1.1 A Diversity of Opinion
 3.1.2 Some Specific Problems within Conventional Quantum Theory 3.2 The Projection Principle in Connection with Fictitious Realities; 3.2.1 Alternative Realities; 3.2.2 Relationships; 3.2.3 Sequences; 3.3 Distribution of Information; 3.4 Basic Transformation Effects; 3.4.1 Particles; 3.4.2 Role of Time t ; 3.4.3 Non-Local Effects; 3.4.4 Conclusion; 3.5 Pictures within Projection Theory; 3.6 Auxiliary Constructions; 3.6.1 Energy within Conventional Physics; 3.6.2 The Physical Laws of Basic Reality; 3.6.3 Remark; 3.7 Basic Laws; 3.7.1 Stationary Case; 3.7.2 Non-Stationary Case; 3.7.3 Discussion
 3.8 Extension of Conventional Quantum Theory 3.9 Only Processes are Relevant!; 3.9.1 Free Systems; 3.9.2 Principle of Usefulness; 3.9.3 Real Situation; 3.9.4 Summary; 3.10 Interactions; 3.10.1 What Does Interaction Mean within Projection Theory?; 3.10.2 Delocalized Systems in (p, E) -Space; 3.10.3 Abstract Interaction Laws; 3.11 Distance-Independent Interactions; 3.11.1 General Remarks; 3.11.2 Principal Analysis; 3.11.3 Basic Equations in the Case of Distance-Independent Interactions; 3.11.4 No Exchange of "Space-Time Pieces"; 3.12 Arbitrary Jumps within (r, t) -Space
 3.12.1 The (p, E) -Distributions

Sommario/riassunto

We see objects in front of us, and experience a real material effect when we approach and touch them. Thus, we conclude that all objects are embedded in space and exist objectively. However, such experiences in everyday life cannot be transferred to the atomic level: within standard quantum theory, the material world is still embedded in space, but it no longer has an objective existence. How can objects be embedded in space without existing objectively? This book addresses this and similar issues in an illustrative and non-conventional way. Using up-to-date information, the following basic qu
