The Undivided Universe Ontological Interpretation Of Quantum Theory | 3b0a7fb23df3128faa7c8847f3e257aa


Modal Interpretation of Quantum MechanicsWeimar Culture and Quantum MechanicsUrantia the Earth-The Origin of It AllQuantum mechanics and the Philosophy of Alfred North WhiteheadQuantum Mechanics Between Ontology and EpistemologyComplexityDimensions of Conscious ExperiencePractising Existential PsychotherapyOver dialogInterpreting quantum mechanics: a historical approachProbing the Meaning of Quantum MechanicsExperience, Reality, and Scientific ExplanationOnomkeerbaarheid van de tijdThe Ontology of SpacetimeScale in Conscious Experience

Gods filosofen In a world where religious pluralism is a necessity of modern life, diverse religions exist for the diverse people populating the earth. Theologically, how do people of different faiths find liberation in their separate gods simultaneously? Stephen Kaplan answers this question with his new book, Different Paths, Different Summits. He presents a model for religious pluralism that does not fail victim to the criticisms of pluralist models. Religious positions do not need to be transcended in order for varying faiths to be both honored and liberating simultaneously. Kaplan skillfully depicts three different realities, a theistic ultimate reality, a monistic ultimate reality, and a process non-dualism, along with their beliefs. His model allows for each to exit simultaneously, mutually interpenetrating and distinct.

The Undivided Universe First Published in 1995, Routledge is an imprint of Taylor & Francis, an informa company.

Logic, Epistemology, and the Unity of Science Is there a mechanism through which some people can see the future? How can a life in this universe be predetermined? Where might information about the future exist? If we are to have faith in our grasp of physics and cosmological beliefs, it must exist outside this universe. How can we structure a multiverse so that it broadly accommodates precognition? In Time and the Multiverse, author Dr. Gerald Holdsworth addresses these questions and more as a result of established physics. Holdsworth accepted the challenge of explaining the basis behind the common experience of precognition, the easiest phenomena to verify but the hardest to explain. He tells how he built a looped version of the serial, time-zoned multiverse which exhibits time zoning within the regular clock time system as well as revealing what can be termed a timing system, which coordinates the processes within the multiverse Cosm quantum computer. This second time is in practice represented by a fixed frequency of time pips occurring within the computer. Author notes what I present in chapter 2 of this book concerning the dynamics of the multiverse cannot be described by mathematical equations because the physics isn't available, I have relied entirely on logical statements and geometry to produce the Cosmic Blueprint and, from a special case of it, the Cosmological model. Arthur Eddington and Wolfgang Pauli knew that to achieve a complete understanding of our existence one has to include all the unexplained anomalies (like precognition) along with established physics: quantum mechanics, particle physics and Einsteins gravity theory. Eddington and John W Dunne realized that time would play a major role in tying together all the evidence. Dunnes attempts ending in 1955 were invalid due to his deliberate exclusion of the existence of multiple universes. He did at least finally confess his spiritual experiences.

Emergent Quantum Mechanics In this book Michael Di Fuccia examines the theological import of Owen Barfield's poetic philosophy. He argues that philosophies of immanence fail to account for creativity, as is evident in the false shuffling between modernity's active construal and postmodernity's passive construal of subjectivity. In both extremes subjectivity actually dissolves, divesting one of any creative integrity. Di Fuccia shows how in Barfield's scheme the creative subject appears instead to inhabit a middle or medial realm, which upholds one's creative integrity. It is in this way that Barfield's poetic philosophy gestures toward a theological vision of poiesis proper, wherein creativity is envisaged as neither purely passive nor purely active, but middle. Creativity, thus, is not inmanent but mediated, a participation in God's primordial poiesis.

Jaarboek Integrale Geneeskunde 2005/2006 At the heart of quantum mechanics lies the wave function, a powerful but mysterious mathematical object which has been a hot topic of debate from its earliest stages. Covering much of the recent debate and providing a comprehensive and critical review of competing approaches, this ambitious text provides new, decisive proof of the reality of the wave function. Aiming to make sense of the wave function in quantum mechanics and to find the ontological content of the theory, this book explores new ontological interpretations of the wave function in terms of random discontinuous motion of particles. Finally, the book investigates whether the suggested quantum ontology is complete in solving the measurement problem and if it should be revised in the relativistic domain. A timely addition to the literature on the foundations of quantum mechanics, this book is of value to students and researchers with an interest in the philosophy of physics.

The User Unconscious This new text by Ernesto Spinelli examines the unique qualities and possibilities of an existential approach to psychotherapy. Drawn from his own experience as an internationally recognised theorist, lecturer and practitioner, its overall aim is to provide a thorough and accessible explication of existential psychotherapy in practice. Beginning with an overview of the theoretical underpinnings and distinguishing features of existential psychotherapy, the text describes and develops a three-phase structural model for its practice.

Scale in Conscious Experience The first volume in this new series explores, through extensive co-operation, new ways of achieving the integration of science in all its diversity. The book offers essays from important and influential philosophers in contemporary philosophy, discussing a range of topics from philosophy of science to epistemology, philosophy of logic and game theoretical approaches. It will be of interest to philosophers, computer scientists and all others interested in the scientific rationality.

Eindeloos bewustzijn Restorative justice is spreading like wildfire across the globe. How can we explain this burst of energy? This anthology makes the bold claim that restorative justice is a vibrant social justice movement. It is more than a great idea gone viral, more than the extension of the legal system, and more than enacting new legislation. Beginning in 2015, the contributors of this volume took part in a series of dialogues sponsored by the Zehr Institute for
Renaissance, exploring the contours of the restorative justice movement. Each one writes from the burgeoning edges of their own context, inviting readers to consider the fidelity and integrity of the movement's growth. As a cadre, the authors highlight new locations of restorative justice application: race, pedagogy, ecology, youth organizing, community violence reduction, and more. These diverse voices put forward a fast-paced, hard-hitting glimpse into the pulse of restorative justice today and what it may look like tomorrow.

Owen Barfield This book provides an interdisciplinary perspective on one of the most fascinating and important open questions in science: What is quantum mechanics talking about? Quantum theory is perhaps our best confirmed physical theory. However, despite its great empirical effectiveness and the subsequent technological developments that it gave rise to in the 20th century, from the interpretation of the periodic table of elements to CD players, holograms and quantum state teleportation, it stands even today without a universally accepted interpretation. The novelty of the book comes from the multiple viewpoints and subjects investigated by a group of researchers from Europe and North and South America.

A Phenomenological Revision of E. E. Harris’s Dialectical Holism This Biographical Dictionary provides detailed accounts of the lives, works, influence and reception of thinkers from all the major philosophical schools and traditions of the twentieth-century. This unique volume covers the lives and careers of thinkers from all areas of philosophy - from analytic philosophy to Zen and from formal logic to aesthetics. All the major figures of philosophy, such as Nietzsche, Wittgenstein and Russell are examined and analysed. The scope of the work is not merely restricted to the major figures in western philosophy but also covers in depth a significant number of thinkers from the near and far east and from the non-European Hispanic-language communities. The Biographical Dictionary also includes a number of general entries dealing with important schools of philosophy, such as the Vienna Circle, or currents of thought, such as vitalism. These allow the reader to set the individual biographies in the context of the philosophical history of the period. With entries written by over 100 leading philosophy scholars, the Biographical Dictionary is the most comprehensive survey of twentieth-century thinkers to date. Structure The book is structured alphabetically by philosopher. Each entry is structurally designed for ease of access and covers: * nationality * dates and places of birth and death * philosophical style or school * areas of interest * higher education * significant influences * main appointments * main publications * secondary literature * account of intellectual development and main ideas * critical reception and impact At the end of the book a glossary gives accounts of the schools, movements and traditions to which these philosophers belonged, and thorough indexes enable the reader to access the information in several ways: * by nationality * by major areas of contribution to philosophy e.g. aesthetics * by major influences on the thinker concerned e.g. Plato, Kant, Wittgenstein

Liberating Sociology: From Newtonian Toward Quantum Imaginations: Volume 1: Unriddling the Quantum Enigma Coined by artist and media researcher Bill Seaman, “neosentience” describes a new branch of scientific inquiry related to artificial intelligence. This volume explores the groundbreaking work of Seaman and chaos physicist Otto E. Rossler in exploring the potential of an intelligent robotic entity possessed of a form of sentience that ever-more-closely resembles that of a human being. Individual chapters approach the concept from a range of disciplines, including psychology, neuroscience, linguistics, and the arts. Neosentience is a burgeoning area of interest, and this book encourages readers to reflect on how we experience and interpret the world, how memory works, and what it is to be human. ‘Although the manuscript’s subject might fit within the domains of Artificial Intelligence, Artificial Life, consciousness and mind studies, the approach to these topics comes from a poetic/scientific point of view within which its originality becomes apparent. Both authors have directly or indirectly contributed to the field of arts and profusely written on correlated subjects and its intersection with the domains of science and technology. This gives to the book a unique approach, which is insightful, speculative and substantial at the same time. This intuitive side of the manuscript owes to that fecund conjunction between arts and science.’ Guto Nobrega More information The study addressed in this “book” puts forward a project that is twofold. Firstly, it discusses the conceptual basis within which it would be possible for the construction of a “neosentient” system, a machine endowed with the capacity to perceive or feel things in the world, as if manifesting a proto form of (artificial) consciousness. Secondly, it hypothesizes about the rising of benevolence through the interaction/intra-action, between “neosentient” machines and their environment, which include us, human beings, as inhabitants. The manuscript tackles its task in a very particular manner as it interrelates a constellation of ideas in order to address key research agendas on the fields of language, aesthetics, philosophy, biology, physics, science, technology, mind and consciousness to name some. The goal of the book is not to define the structure within which such an engine could be built, it does not bring into light the blueprint of such an, but it nails down key concepts from a broad range of topics, mapping a path for future research, reinforcing this way the sense of feasibility of its enterprise. In doing so, the book illuminates trajectories, ramifications or even non-directly correlated ideas that would pass unnoticed to the reader’s mind, were not by the authors generously bringing into play sets of key scholars, theories, discoveries, even speculative ideas.

The Meaning of the Wave Function ‘Middeleeuwen’ is synoniem geworden voor wredeheid en onbeschaafd gedrag. Toch waren Galileo, Newton en de Wetenschappelijke Revolutie niet mogelijk geweest zonder het werk van middeleeuwse geleerden en wetenschappers. In Gods filosofen veegt James Hannam de vloer aan met veel mythen over de Middeleeuwen. Hij toont aan dat men in de Middeleeuwen niet dacht dat de aarde plat was en dat Columbus ook niet ‘beweest’ dat het een bol was; de Inquisitie zette niemand op de bandstapel vanwege zijn wetenschappelijke inzichten en evenmin was Copernicus bang voor vervolging. ‘Amplitude onderzoek’ is een eerbewijs aan de vergeten wetenschappelijke prestaties van de Middeleeuwen aan de vooruitgang die dikwijls eerder dankzij dan ondanks de invloed van het christendom en de islam werd geboekt. Ook op technologisch gebied vonden doorslaggevende ontwikkelingen plaats: de bril en de mechanische klok werden bijvoorbeeld beide in het Europa van de dertiende eeuw uitgevonden. Een epische reis door zes eeuwen geschiedenis.

The Palgrave Handbook of Quantum Models in Social Science In Process and Reality and other works, Alfred North Whitehead struggled to come to terms with the impact the new science of quantum mechanics would have on metaphysics. This ambitious book is the first extended analysis of the intricate relationships between relativity theory, quantum mechanics, and Whitehead's cosmology. Michael Epperson illuminates the intersection of science and philosophy in Whitehead's work-and details Whitehead's attempts to fashion an ontology coherent with quantum anomalies. Including a nonspecialist introduction to quantum mechanics, Epperson adds an essential new dimension to our understanding of Whitehead-and of the constantly enriching encounter between science and philosophy in our century.

Neosentience This book seeks to work out which commitments are minimally sufficient to obtain an ontology of the natural world that matches all of today’s well-established physical theories. We propose an ontology of the natural world that is defined only by two axioms: (1) There are distance relations that individuate simple objects, namely matter points. (2) The matter points are permanent, with the distances between them changing. Everything else comes in as a means to represent the change in the distance relations in a manner that is both as simple and as informative as possible. The book works this minimalist ontology out in philosophical as well as mathematical terms and shows how one can understand classical mechanics, quantum field theory and relativistic physics on the basis of this ontology. Along the way, we seek to achieve four subsidiary aims: (a) to make a case for a holistic individuation of the basic objects (ontic structural realism); (b) to work out a new version of Humeanism, dubbed Super-Humeanism, that does without natural properties; (c) to set out an ontology of quantum physics that is an alternative to quantum state realism and that avoids any ontological dualism of particles and fields; (d) to vindicate a relationalist ontology based on point objects also in the domain of relativistic physics.
Time and the Multiverse In 2001 publieerde cardioloog Pim van Lommel in het gerenommeerde medische tijdschrift The Lancet over zijn onderzoek naar bijna-dood ervaringen (BDE) bij 344 Nederlandse patiënten. Zij hadden een hartstilstand in het ziekenhuis gehad. Van hen bleken er 62 een BDE te hebben meegemaakt. Van Lommels artikel was wereldnieuws. Sindsdien kunnen we niet meer om het verschijnsel bijna-dood ervaring heen. Het is een authentieke ervaring, niet te herleiden tot fantasie, psychose of zuurstoftekort; een BDE verandert mensen blijvend. In Eindeloos bewustzijn legt van Lommel stap voor stap uit hoe mensen die klinisch dood zijn toch zon indringende ervaring kunnen hebben. Hij doorsept zijn betoog met verhalen van mensen die een BDE hebben meegemaakt. Met de meesten heeft hij Van Lommel persoonlijk contact gehad. Volgens Van Lommel is de heersende, materialistische visie van artsen, filosofen en psychologen op de relatie tussen hersenen en bewustzijn te beperkt om het verschijnsel te kunnen duiden. Er zijn goede redenen om aan te nemen dat ons bewustzijn niet altijd samenvaait met het functioneren van onze hersenen: het kan ook los van ons lichaam ervaren worden.

Listening to the Movement This book contains selected papers from the First International Conference on the Ontology of Spacetime. Its fourteen chapters address two main questions: first, what is the current status of the substantivalism/relativism debate, and second, what about the prospects of presentism and becoming within present-day physics and its philosophy? The overall tenor of the four chapters of the book's first part is that the prospects of spacetime substantivalism are bleak, although different possible positions remain with respect to the ontological status of spacetime. Part I and Part III of the book are devoted to presentism, eternalism, and becoming, from two different perspectives. In the six chapters of Part II it is argued, in different ways, that relativity theory does not have essential consequences for these philosophies. It certainly is true that the structure of time is different, according to relativity theory, from the one in classical theory. But that does not mean that a decision is forced between presentism and eternalism, or that becoming has proved to be an impossible concept. It may even be asked whether presentism and eternalism really offer different ontological perspectives at all. The writers of the last four chapters, in Part III, disagree. They argue that relativity theory is incompatible with becoming and presentism. Several of them come up with proposals to go beyond relativity, in order to restore the prospects of presentism. - Space and time in present-day physics and philosophy - Introduction from scratch of the debates surrounding time - Broad spectrum of approaches, coherently represented

David Bohm The papers collected here comprise the proceedings of a Workshop in honor of Merrilee and Wes Salmon, held in Florence on May 17-18, 1996. The aim of the meeting was to pay homage to these two American scholars, whose contact with Italian and European Universities and Institutes had a major influence on the "Continent" thought in the field of epistemology and probability. In fact, Merrilee and Wes spent various periods lecturing at the Universities of Bologna, Florence, Rome, Trieste, Catania and Pisa, as well as in the University of Constance, where they helped to build a strong cultural "bridge" with the Pittsburgh Center for the Philosophy of Science. The Florence Center for the History and Philosophy of Science is particularly thankful to the Salmons for their ongoing cooperation and frequent visits. We must not forget that Wes Salmon was in the Florence Center and at the Philosophy Department of Florence, as visiting scholar, on many occasions, and that he made important contributions which have often been discussed in Italian journals, such as Iride and Rivista di filosofia. Merrilee was a speaker at the Conference on "Genetics, Linguistics, and Archaeology" (May 20-24,1991), organized by the Florence Center. Both Wes and Merrilee often enlivened the arguments of the initiatives they took part in.

Eightb Marcel Grossmann Meeting, The: On Recent Developments In Theoretical And Experimental General Relativity, Gravitation, And Relativistic Field Theories - Proceedings Of The Meeting (In 2 Parts) This volume is the result of the third Appalachian Conference on Behavioral Neurodynamics which focused on the problem of scale in conscious experience. Set against the philosophical view of "eliminative materialism," the purpose of this conference was to facilitate communication among investigators who approach the study of consciousness and conscious phenomena from a variety of analytical levels. One speculative outcome of the conference is that the columnar arrangement within primary sensory cortices may provide the local isolation necessary for nonlocal interactions to occur. In addition, the relationship between unit activity and field potentials within a circumscribed region of cortex may provide the other enigmatic aspect of neurophysiological nonlocality, namely, the common context in the macro scale. So instead of a problem looking for a solution, scale becomes a solution to a problem. Only further research will determine the utility of the ideas expressed here.

Biographical Dictionary of Twentieth-Century Philosophers Emergent quantum mechanics explores the possibility of an ontology for quantum mechanics. The resurgence of interest in "deeper-level" theories for quantum phenomena challenges the standard, textbook interpretation. The book presents expert views that critically evaluate the significance—for 21st century physics—of ontological quantum mechanics, an approach that David Bohm helped pioneer. The possibility of a deterministic quantum theory was first introduced with the original de Broglie-Bohm theory, which has also been developed as Bohmian mechanics. The wide range of perspectives that were contributed to this book on the occasion of David Bohm's centennial celebration provide ample evidence for the physical consistency of ontological quantum mechanics. The book addresses deeper-level questions such as the following: Is reality intrinsically random or fundamentally interconnected? Is the universe local or nonlocal? Might a radically new conception of reality include a form of quantum causality or quantum ontology? What is the role of the experimenter agent? As the book demonstrates, the advancement of 'quantum ontology'—as a scientific concept—marks a clear break with classical reality. The search for quantum reality entails unconventional causal structures and non-classical ontology, which can be fully consistent with the known record of quantum observations in the laboratory.

The Undivided Universe In this major new study in the sociology of scientific knowledge, social theorist Mohammad H. Tamdgidi reports having unriddled the so-called 'quantum enigma.' This book opens the lid of the Schrödinger's Cat box of the 'quantum enigma' after decades and finds something both odd and familiar: Not only the cat is both alive and dead, it has morphed into an elephant in the room in whose interpretation Einstein, Bohr, Bohm, and others were each right and wrong because the enigma has acquired both localized and spread-out features whose unriddling requires both physics and sociology amid both transcendisciplinary and transculutral contexts. The book offers, in a transdisciplinary and transcultural sociology of self-knowledge framework, a relativistic interpretation to advance a liberating quantum sociology. Deeper methodological grounding to further advance the sociological imagination requires investigating whether and how relativistic and quantum scientific revolutions can generate a liberating reinvention of sociology in favor of creative research and a just global society. This, however, necessarily leads us to confront an elephant in the room, the 'quantum enigma.' In Unriddling the Quantum Enigma, the first volume of the series commonly titled Liberating Sociology: From Newtonian toward Quantum Imaginations, sociologist Mohammad H. Tamdgidi argues that unriddling the 'quantum enigma' depends on whether and how we succeed in dehabituating ourselves in favor of unified relativistic and quantum visions from the historically and ideologically inherited, classical Newtonian modes of imagining reality that have subconsciously persisted in the ways we have gone about posing and interpreting (or not) the enigma itself for more than a century. Once this veil is lifted and the enigma unriddled, he argues, it becomes possible to reinterpret the relativistic and quantum ways of imagining reality (including social reality) in terms of a unified, nonreductive, creative dialogic of part and whole that fosters quantum sociological imaginations, methods, theories, and practices favoring liberating and just social outcomes. The essays in this volume develop a set of relativistic interpretive solutions to the transculutral sociology of quantum enigma. Following a survey of relevant studies, and an introduction to the transdisciplinary and transcultural sociology of self-knowledge framing the study, overviews of Newtonianism, relativity and quantum scientific revolutions, the quantum enigma, and its main interpretations to date are offered. They are followed by a study of the notion of the “wave-particle duality of light” and the various experiments associated with the quantum enigma in order to arrive at a relativistic interpretation of the enigma, one that is shown to be capable of critically cohering other official interpretations. The book concludes with a heuristic presentation of the ontology, epistemology, and methodology of what
Tamdgidi calls the creative dialectics of reality. The volume essays involve critical, comparative/integrative reflections on the relevant works of founding and contemporary scientists and scholars in the field. This study is the first in the monograph series “Tayyeb Series in East-West Research and Translation” of Human Architecture: Journal of the Sociology of Self-Knowledge (XIII, 2020), published by OKCIR: Omar Khayyam Center for Integrative Research in Utopia, Mysticism, and Science (Utopystics). OKCIR is dedicated to exploring, in a simultaneously world-historical and self-reflective framework, the human search for a just global society. It aims to develop new conceptual (methodological, theoretical, historical), practical, pedagogical, inspirational and disseminative structures of knowledge whereby the individual can radically understand and determine how world-history and her/his selves constitute one another. Reviews “Mohammad H. Tamdgidi’s Liberating Sociology: From Newtonian Toward Quantum Imaginations, Volume 1. Unriddling the Quantum Enigma hits the proverbial nail on the head of an ongoing problem not only in sociology but also much social science—namely, many practitioners’ allegiance, consciously or otherwise, to persisting conceptions of ‘science’ that get in the way of scientific and other forms of theoretical advancement. Newtonianism has achieved the status of an idol and its methodology a fetish, the consequence of which is an ongoing failure to think through important problems of uncertainty, indeterminacy, multivariation, multidisciplinarity, and false dilemmas of individual agency versus structure, among many others. Tamdgidi has done great service to social thought by bringing to the fore this problem of disciplinary decadence and offering, in effect, a call for its teleological suspension—thinking beyond disciplinarity—through drawing upon and communicating with the resources of quantum physics not as a fetish but instead as an opening for other possibilities of social, including human, understanding. The implications are far-reaching as they offer, as the main title attests, liberating sociology from persistent epistemic shackles and thus many disciplines and fields connected to things ‘social.’ This is exciting work. A triumph! The reader is left with enthusiasm for the second volume and theorists of many kinds with proverbial work to be done.” — Professor Lewis R. Gordon, Honorary President of the Global Center for Advanced Studies and author of Disciplinary Decadence: Living Thought in Trying Times (Routledge/Paradigm, 2006), and Freedom, Justice, and Decolonization (Routledge, forthcoming 2020) “Social sciences are still using metatheoretical models of science based on 19th century newtonian concepts of “time and space”. Mohammad H. Tamdgidi has produced a ‘jour de force’ in social theory leaving behind the old newtonian worldview that still informs the social sciences towards a 21st century non-dualistic, non-reductionist, transcultural, transdisciplinary, post-Einsteinian quantum concept of TimeSpace. Tamdgidi goes beyond previous efforts done by titans of social theory such as Immanuel Wallerstein and Kyriakos Kontopoulos. This book is a quantum leap in the social sciences at large. Tamdgidi decolonizes the social sciences away from its Eurocentric colonial foundations bringing it closer not only to contemporary natural sciences but also to its convergence with the old Eastern philosophical and mystical worldviews. This book is a masterpiece in social theory for a 21st century decolonial social science. A must read!” — Professor Ramon Grosfoguel, University of California at Berkeley ??????? ? “Tamdgidi’s Liberating Sociology succeeds in adding physical structures to the breadth of the world-changing vision of C. Wright Mills, the man who mentored me at Columbia. Relativity theory and quantum mechanics can help us to understand the human universe no less than the physical universe. Just as my Creating Life Before Death challenges bureaucracy’s conformist orientation, so does Liberating Sociology liberate the infinite possibilities inherent in us.” Given our isolation in the Coronavirus era, we have time to follow Tamdgidi in his journey into the depth of inner space, where few men have gone before. It is there that we can gain emotional strength, just as Churchill, Roosevelt and Mandela empowered themselves. That personal development was needed to address not only their own personal problems, but also the mammoth problems of their societies. We must learn to do the same.” — Bernard Phillips, Emeritus Sociology Professor, Boston University

Cloud of the Impossible The book on Ontology in Information Science explores a broad set of ideas and presents some of the state-of-the-art research in this field concisely in 12 chapters. This book provides researchers and practitioners working in the field of ontology and information science an opportunity to share their theories, methodologies, experiences, and experimental results related to ontology development and application in various areas. It also includes the design aspects of domain ontologies considering the architecture, development strategy, and selection of tools. The intended audience of this book will mainly consist of researchers, research students, and practitioners in the field of ontology and information science.

Different Paths, Different Summits Since 1975, the Marcel Grossmann Meetings have been organized to provide opportunities for discussing recent advances in gravitation, general relativity and relativistic field theories, emphasizing mathematical foundations, physical predictions and experimental tests. The objective of these meetings is to facilitate exchange among scientists that may deepen our understanding of space-time structures and to review the status of ongoing experiments aimed at testing Einstein's theory of gravitation from either the ground or space. The Eighth Marcel Grossmann Meeting took place on 22-27 June, 1997, at the Hebrew University of Jerusalem, Israel. The scientific program included 25 plenary talks and 40 parallel session presentations which appeared in 400 papers were presented. The papers that appear in this book cover all aspects of gravitation, from mathematical issues to recent observations and experiments.

Statistical Mechanics And Scientific Explanation: Determinism, Indeterminism And Laws Of Nature This book explores the prospects of rivaling ontological and epistemic interpretations of quantum mechanics (QM). It concludes with a suggestion for how to interpret QM from an epistemological point of view and with a Kantian touch. It thus refines, extends, and combines existing approaches in a similar direction. The author first looks at current, hotly debated ontological interpretations. These include hidden variables-approaches, Bohmian mechanics, collapse interpretations, and the many worlds interpretation. He demonstrates why none of these ontological interpretations can claim to be the clear winner amongst its rivals. Next, coverage explores the possibility of interpreting QM in terms of knowledge but without the assumption of hidden variables. It examines QBism as well as Healey's pragmatist view. The author finds both interpretations or programs appealing, but still wanting in certain respects. As a result, he then goes on to advance a genuine proposal as to how to interpret QM from the perspective of an internal realism in the context of violations of Bell-type inequalities.

A Minimalist Ontology of the Natural World In 1955 the Uranitia Book appeared, all in 2,100 pages. It is a heavy read that tells us how we came to be, what we may become, and enough about astronomy to help us understand what makes that possible. It has sold 3/4 million copies in many languages, and would have sold many more if it were simpler to read. The purpose of this book, Uranitia the Earth: The Origin of It All, is to help bring that about to make it more negotiable, more user-friendly. This is not a dumbing-down exercise; this book is a reading aid, challenging enough in itself.

Ontology in Information Science

The Modal Interpretation of Quantum Mechanics First published in 1995. Routledge is an imprint of Taylor & Francis, an informa company.

Weimar Culture and Quantum Mechanics According to the modal interpretation, the standard mathematical framework of quantum mechanics specifies the physical magnitudes of a system, which have definite values. Probabilities are assigned to the possible values that these magnitudes may adopt. The interpretation is thus concerned with physical properties rather than with measurement results: it is a realistic interpretation (in the sense of scientific realism). One
of the notable achievements of this interpretation is that it dissolves the notorious measurement problem. The papers collected here, together with the introduction and concluding critical appraisal, explain the various forms of the modal interpretation, survey its achievements, and discuss those problems that have yet to be solved. Audience: Philosophers of science, theoretical physicists, and graduate students in these disciplines.

Urantia the Earth-The Origin of It All

Quantum Mechanics and the Philosophy of Alfred North Whitehead This book condenses some of the critical features of the discussion about the interpretative problems of quantum mechanics, pointing out some possible ways out of the conundrum. In order to set the road for these matters, chapter one introduces a conceptual history of the theory and its alternative interpretations. Chapter two profiles a taxonomy of the interpretative problems and some possible solutions, focused in the so-called measurement problem. Chapter three questions the thesis of quantum mechanics becoming what it is due to historical contingency. Finally, in chapter four, an argument is advanced to consider one particular interpretation—the causal account—as an alternative view that may help with the solution of the interpretative knot.

Quantum Mechanics Between Ontology and Epistemology Acht lezingen over natuurkundige en filosofische aspecten van het verschijnsel tijd.

Complexity

Dimensions of Conscious Experience It is by now commonly agreed that the proper study of consciousness requires a multidisciplinary approach which focuses on the varieties and dimensions of conscious experience from different angles. This book, which is based on a workshop held at the University of Skövde, Sweden, provides a microcosm of the emerging discipline of consciousness studies and focuses on some important but neglected aspects of consciousness. The book brings together philosophy, psychology, cognitive neuroscience, linguistics, cognitive and computer science, biology, physics, art and the new media. It contains critical studies of subjectivity vs objectivity, nonconceptuality vs conceptuality, language, evolutionary aspects, neural correlates, microphysical level, creativity, visual arts and dreams. It is suitable as a text-book for a third-year undergraduate or a graduate seminar on consciousness studies. (Series A)

Practising Existential Psychotherapy Wide-ranging essays and experimental prose forcefully demonstrate how digital media and computational technologies have redefined what it is to be human. Over the past decade, digital media has expanded exponentially, becoming an essential part of daily life. The stimulating essays and experimental compositions in The User Unconscious delve into the ways digital media and computational technologies fundamentally affect our sense of self and the world we live in, from both human and other-than-human perspectives. Critical theorist Patricia Ticineto Clough’s provocative essays center around the motif of the “user unconscious” to advance the challenging thesis that we are both human and other-than-human: we now live, think, and dream within multiple layers of computational networks that are constantly present, radically transforming subjectivity, sociality, and unconscious processes. Drawing together rising strains of philosophy, critical theory, and media studies, as well as the political, social, and economic transformations that are shaping the twenty-first-century world, The User Unconscious points toward emergent crises and potentials in both human subjectivity and sociality. Moving from affect to data, Clough forces us to see that digital media and computational technologies are not merely controlling us—they have already altered what it means to be human.

Over dialoog This volume covers the rapidly developing field of complexity studies with the underlying theme that complexity is to be found everywhere. The volume discusses many chemical applications and offers a comprehensive coverage of complexity and the ways in which it may be measured, complexity indices, complexity measures based on Shannon's information

Interpreting quantum mechanics: a historical approach The experience of the impossible churns up in our epoch whenever a collective dream turns to trauma: politically, sexually, economically, and with a certain ultimacy, ecologically. Out of an ancient theological lineage, the figure of the cloud comes to convey possibility in the face of the impossible. An old mystical nonknowing of God now hosts a current knowledge of uncertainty, of indeterminate and interdependent outcomes, possibly catastrophic. Yet the connectivity and collectivity of social movements, of the fragile, unlikely webs of an alternative notion of existence, keep materializing—a haunting hope, densely entangled, suggesting a more convivial, relational world. Catherine Keller brings process, feminist, and ecopolitical theologies into transdisciplinary conversation with continental philosophy; the quantum entanglements of a “participatory universe,” and the writings of Nicholas of Cusa, Walt Whitman, A. N. Whitehead, Gilles Deleuze, and Judith Butler, to develop a “theopoetics of nonseparable difference.” Global movements, personal embroilments, religious diversity, the inextricable relations of humans and nonhumans—these phenomena, in their unsettling togetherness, are exceeding our capacity to know and manage. By staging a series of encounters between the nonseparable and the nonknowable, Keller shows what can be born from our cloudiest entanglement.

Probing the Meaning of Quantum Mechanics It is not intuitive to accept that there exists a link between quantum physical systems and cognitive systems. However, recent research has shown that cognitive systems and collective (social) systems, including biology, exhibit uncertainty which can be successfully modelled with quantum probability. The use of such probability allows for the modelling of situations which typically violate the laws of classical probability. The Palgrave Handbook of Quantum Models in Social Science is a unique volume that brings together contributions from leading experts on key topics in this new and emerging field. Completely self-contained, it begins with an introductory section which gathers all the fundamental notions required to be able to understand later chapters. The handbook then moves on to address some of the latest research and applications for quantum methods in social science disciplines, including economics, politics and psychology. It begins with the issue of how the quantum mechanical framework can be applied to economics. Chapters devoted to this topic range from how Fisher information can be argued to play a role in economics, to the foundations and application of quantum game theory. The handbook then progresses in considering how belief states can be updated with the theory of quantum measurements (and also with more general methods). The practical use of the Hilbert space (and Fock space) in decision theory is then introduced, and open quantum systems are also considered. The handbook also treats a model of neural oscillators that reproduces some of the features of quantum cognition. Other contributions delve into causal reasoning using quantum Bayes nets and the role of quantum probability in modelling so called affective evaluation. The handbook is rounded off with two chapters which discuss the grand challenges which lie ahead of us. How can the quantum formalism be justified in social science and is the traditional quantum formalism too restrictive? Finally, a question is posed: whether there is a necessary role for quantum mathematical models to go beyond physics. This book will bring the latest and most cutting edge research on quantum theory to social science disciplines. Students and researchers across the discipline, as well as those in the fields of physics and mathematics will welcome this important addition to the literature.
Onomkeerbaarheid van de tijd Door onze gedachten te onderzoeken en in dialoog te gaan, kunnen we een andere wereld creëren. Filosoof David Bohm toont in ‘Over dialoog’ helder aan dat inzicht in het proces van ons denken de enige manier is om problemen bij de wortel aan te pakken. Want als we problemen willen oplossen met dezelfde gedachten als waarmee we ze creëren, ontstaan er juist nieuwe. ‘Over dialoog’ laat zien hoe we ons op een compleet nieuwe manier kunnen verhouden tot onszelf, medemensen en de wereld waarin wij leven.

The Ontology of Spacetime This volume reprints Paul Forman’s classic papers on the history of the scientific profession in post-World War I Germany and the invention of quantum mechanics. The Forman thesis became famous for its demonstration of the cultural conditioning of scientific knowledge, in particular by showing the historical connection between the culture of Weimar Germany OC known for its irrationality and antiscientism OC and the emerging concept of quantum acausality. From the moment of its publication, Forman’s research provoked intense historical and philosophical debates. In 2007, participants at an international conference in Vancouver, Canada, discussed the implications of the Forman thesis for contemporary historiography. Their contributions collected in this volume represent cutting-edge research on the history of the quantum revolution and of German science.

Scale in Conscious Experience This authoritative biography addresses the life and work of the quantum physicist David Bohm. Although quantum physics is considered the soundest physical theory, its strange and paradoxical features have challenged - and continue to challenge - even the brightest thinkers. David Bohm dedicated his entire life to enhancing our understanding of quantum mysteries, in particular quantum nonlocality. His work took place at the height of the cultural/political upheaval in the 1950's, which led him to become the most notable American scientist to seek exile in the last century. The story of his life is as fascinating as his ideas on the quantum world are appealing.