

1. Record Nr.	UNINA9910971398103321
Autore	Haven Emmanuel <1965->
Titolo	Quantum social science / / Emmanuel Haven and Andrei Yu. Khrennikov
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2013
ISBN	1-139-85385-6 1-107-23483-2 1-139-00326-7 1-139-84477-6 1-139-84122-X 1-283-94293-3 1-139-84003-7 1-139-84575-6 1-139-84241-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (xxiii, 279 pages) : digital, PDF file(s)
Disciplina	300.1/53012
Soggetti	Social sciences - Mathematical models Quantum theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I. Physics Concepts in Social Science? A Discussion. Classical, statistical and quantum mechanics: all in one ; Econophysics: statistical physics and social science ; Quantum social science: a non-mathematical motivation. -- Part II. Mathematics and Physics Preliminaries. Vector calculus and other mathematical preliminaries ; Basic elements of quantum mechanics ; Basic elements of Bohmian mechanics. -- Part III. Quantum Probabilistic Effects in Psychology: Basic Questions and Answers. A brief overview ; Interference effects in psychology -- an introduction ; A quantum-like model of decision making. -- Part IV. Other Quantum Probabilistic Effects in Economics, Finance and Brain Sciences. Financial/economic theory in crisis ; Bohmian mechanics in finance and economics ; The Bohm-Vigier Model and path simulation ; Other applications to economic/financial theory ;

The neurophysiological sources of quantum-like processing in the brain. -- Conclusion.

Sommario/riassunto

Written by world experts in the foundations of quantum mechanics and its applications to social science, this book shows how elementary quantum mechanical principles can be applied to decision-making paradoxes in psychology and used in modelling information in finance and economics. The book starts with a thorough overview of some of the salient differences between classical, statistical and quantum mechanics. It presents arguments on why quantum mechanics can be applied outside of physics and defines quantum social science. The issue of the existence of quantum probabilistic effects in psychology, economics and finance is addressed and basic questions and answers are provided. Aimed at researchers in economics and psychology, as well as physics, basic mathematical preliminaries and elementary concepts from quantum mechanics are defined in a self-contained way.