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Altri autori (Persone)	ChakrabortiAnirban HavenEmmanuel <1965-> PatraSudip SinghNaresh
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Nota di contenuto	Intro -- Preface -- Contents -- Part I Quantum Decision Theory -- 1 A Brief Overview of the Quantum-Like Formalism in Social Science -- Introduction -- Quantum Versus Quantum-Like -- Quantum Probabilistic Modelling of Decision Making: Is This Exotic? -- What is the Main Advantage of Quantum Information Processing? -- Classical Versus Quantum Probability -- Classical (Bayesian) Versus Quantum (Generally non-Bayesian) Rationality and Social Lasing -- Agreeing to Disagree -- Classical Physics Formalism in Economics and Finance -- Quantum-Like Formalism in Economics and Finance -- Conclusion -- References -- 2 Cooperative Functioning of Unconscious and Consciousness from Theory of Open Quantum Systems -- Introduction -- A Few Words About Quantum Formalism -- Indirect Measurement Scheme: Apparatus with Meter Interacting with a System -- More Technical Details -- Indirect Measurements of Mental Observables: Unconscious as a System and Consciousness as a Measurement Apparatus -- Contextuality -- Concluding Remarks -- References -- 3

Hilbert Space Modelling with Applications in Classical Optics, Human Cognition, and Game Theory -- Introduction -- A Brief Mathematical Detour -- Complex Euclidian Space -- Inner Products and Norms of Vectors -- Direct Sums and Direct Products -- Linear Operator Space -- Examples of Hilbert Spaces -- Operations on Hilbert Spaces -- Bounded and Un-Bounded Operators in Hilbert Space -- Hilbert Space in QM -- Born's Rule: A Small Note -- Application of Hilbert Space in Probability Theory -- Applications of Hilbert Space Representation Outside QM -- Hilbert Space Representation of Classical Optics -- Classical and Quantum Entanglements -- Human Cognition and Decision Modelling -- COM Approach (Patra and Ghose) -- Discussion: Application of COM in Game Theory -- References.

4 Remodeling Leadership: Quantum Modeling of Wise Leadership -- Introduction -- Leadership -- Quantum Basics -- Classical and Quantum Ontology -- Quantum Modeling: Probability and Subjectivity -- Using Quantum-Like Modeling in Social Science -- Non-optimal But Normal Behavior -- Order Effects in Human Cognition -- Conjunction and Disjunction Effects -- Heisenberg-Robertson Inequalities -- Contextuality and Randomness -- Emergence of Concept Combinations Through Entanglement -- Emergent Cognitive State -- Modeling Wise Leader Interaction with Context -- Social Interaction Dynamics -- Implications for Leadership and Wisdom Research -- Wise Leaders as Entangled Actors -- Final Comments -- Appendix 1 -- Appendix 2 -- References -- 5 Quantum Financial Entanglement: The Case of Strategic Default -- Introduction -- Cognitive Entanglement -- Quantum Decision Theory -- Strategic Default -- Social Entanglement -- Financial Entanglement -- Discussion -- Conclusions -- References -- 6 Quantum-Like Contextual Utility Framework Application in Economic Theory and Wider Implications -- Introduction -- Epstein's Framework -- Modelling Background -- Overview of Quantum-Like Modelling Set Up -- Model Set-Up -- Model -- Partial Ambiguity Resolution: Dynamics and Hamiltonian Formulation -- Ambiguity Aversion- Attraction and Diversity of Investors' Opinion and Asset Pricing -- Entropic Measures -- POVM in Decision Models -- Conclusion and Further Discussion -- Objective or Subjective Probabilities? -- Application of Quantum-Like Modelling in Wider Context of Complex Economy -- Interpreting the Model- Real World Implications and Decision Making -- References -- Part II Complexity Modeling in Economics and Public Policy -- 7 Complexity Economics: Why Does Economics Need This Different Approach? -- What Difference Does Complexity Economics Make? -- Closing Thoughts.

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### Sommario/riassunto

This book is an outcome of the interdisciplinary conference held at OP Jindal Global University (Quantum Decision-making and Complexity modeling, and their possible applications in social sciences, economics, finance and public policy). The volume builds upon the emerging fields of econophysics, complexity theory and quantum like modelling in cognition and social sciences, and their plausible applications in economics and public policy. There can be deep linkages between the micro, meso and macro scales at which these paradigms operate. In this data-driven age, greater amounts of information, along with the facility to harvest, sort and process said information, have permitted an expansion of the capability to study a society's various factors to a degree of detail and inclusiveness that has never before been available to researchers. As a result, an increasing number of throughlines is being discovered, revealing heretofore unknown connections between various disciplines and enhancing the study of such societal tropes as finance, language, shared behavior, and many others. As the reader will see, with clearer understanding of the interconnectedness of society's assorted parts comes a clearer understanding of the society as a whole. We have received critical thoughts from noted experts in social and natural sciences to explore possible interconnections.

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