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Titolo	Experimental Econophysics : Properties and Mechanisms of Laboratory Markets // by Ji-Ping Huang
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Descrizione fisica	1 online resource (204 p.)
Collana	New Economic Windows, , 2039-411X
Disciplina	330.015195
Soggetti	Sociophysics Econophysics Behavioral economics Game theory Computational complexity Data-driven Science, Modeling and Theory Building Behavioral/Experimental Economics Game Theory, Economics, Social and Behav. Sciences Complexity
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.
Nota di contenuto	Introduction -- Fundamentals -- Stylized facts: Scaling Law and Clustering Behavior -- Fluctuation Phenomena: Leverage Could be Positive and Negative -- Herd Behavior: Beyond the Known Ruinous Role -- Contrarian Behavior: Beyond the Known Helpful Role -- Hedge Behavior: Statistical Equivalence of Different Systems -- Cooperation: Spontaneous Emergence of the Invisible Hand -- Business Cycles: Competition between Suppliers and Consumers -- Partial Information: Equivalent to Complete Information -- Risk Management: Unusual Risk-Return Relationship -- Prediction: Pure Technical Analysis Might not Work Satisfactorily -- Summary and outlook -- Appendix. .
Sommario/riassunto	Experimental Econophysics describes the method of controlled human experiments, which is developed by physicists to study some problems in economics or finance, namely, stylized facts, fluctuation phenomena, herd behavior, contrarian behavior, hedge behavior, cooperation,

business cycles, partial information, risk management, and stock prediction. Experimental econophysics together with empirical econophysics are two branches of the field of econophysics. The latter one has been extensively discussed in the existing books, while the former one has been seldom touched. In this book, the author will focus on the branch of experimental econophysics. Empirical econophysics is based on the analysis of data in real markets by using some statistical tools borrowed from traditional statistical physics. Differently, inspired by the role of controlled experiments and system modelling (for computer simulations and/or analytical theory) in developing modern physics, experimental econophysics specially relies on controlled human experiments in the laboratory (producing data for analysis) together with agent-based modelling (for computer simulations and/or analytical theory), with an aim at revealing the general cause-effect relationship between specific parameters and emergent properties of real economic/financial markets. This book covers the basic concepts, experimental methods, modelling approaches, and latest progress in the field of experimental econophysics.
