Computational Models In Political Economy Mit Press

This book explains multi-level models of enterprise systems and covers modeling methodology. Presents a 10 step methodology for addressing questions associated with the design or operation of complex systems and enterprises Examines six archetypal enterprise problems including two from healthcare, two from urban systems, and one each from financial systems and defense systems Provides an introduction to the nature of complex systems, historical perspectives on complexity and complex adaptive systems, and the evolution of systems practice

This volume is a collection of articles that shape and define a new view of the economy as an evolving complex system. This view is one of the economy as emerging from the interactions of individual agents whose behavior constantly evolves, whose strategies and actions are always adapting.

This new and comprehensive volume covering the subfield of comparative political economy provides a detailed overview over its intellectual roots, clarifies its contents, and introduces the readers to key debates while identifying new and exciting avenues for future research. Ideas, interests, and institutions have traditionally been the main focus points of this field, but the volume argues that culture provides an additional and often neglected area, providing the 'glue' that keeps national models of capitalism hanging together. The volume also develops pathways beyond the varieties of capitalism paradigm. Building on a thorough and rigorous review of comparative capitalisms and a synthesis of the research strands that have built the bedrock of this subfield, Comparative Political Economy explores the individual components of national models of capitalism and argues that these elements deserve closer scrutiny. Their permutations have been considerable over the past thirty years, and their study permits valuable insights both empirically and theoretically. The empirical coverage of the book includes chapters covering industrial relations, labour markets, systems of education and training, finance, welfare state, and debt. In the conclusion, research pathways forward are identified and the impact of energy security issues and environmental factors on the study of comparative capitalisms will be assessed.

This new book introduces innovative research on democracy from the leading Comparative Manifestos Project (CMP). It details the key achievements of the project to date, illustrates how its findings may be applied, lays out the future challenges it faces and examines how the field as a whole can advance. It also presents a special assessment of the dimensionality of party competition, presenting ways in which research can be extended and related to broader approaches in Political Science and Theory. Although CMP research is widely used and constitutes the major comparative data set on party positions and ideological location, it is also subject to challenge. The volume therefore provides the reader with a clear sense of the key debates and questions surrounding its work. This volume also honours the life-time achievement of Professor Ian Budge, who has provided distinguished intellectual leadership for the CMP over the last twenty-five years. This is an essential point of reference for all comparative research on the functioning of democracies. This book will be of great interest to all students and scholars of politics and of democracy in particular.

Comparative Political Economy

An Agent-Based Model

A Theory of Political Economy Under Fuzzy Rationality

Global Power Through Classification and Rankings

Political Science and the Logic of Representations

A Computational Model of Industry Dynamics

This book provides the first clear, comprehensive, and accessible account of complex adaptive

social systems, by two of the field's leading authorities. Such systems--whether political parties, stock markets, or ant colonies--present some of the most intriguing theoretical and practical challenges confronting the social sciences. Engagingly written, and balancing technical detail with intuitive explanations, Complex Adaptive Systems focuses on the key tools and ideas that have emerged in the field since the mid-1990s, as well as the techniques needed to investigate such systems. It provides a detailed introduction to concepts such as emergence, self-organized criticality, automata, networks, diversity, adaptation, and feedback. It also demonstrates how complex adaptive systems can be explored using methods ranging from mathematics to computational models of adaptive agents. John Miller and Scott Page show how to combine ideas from economics, political science, biology, physics, and computer science to illuminate topics in organization, adaptation, decentralization, and robustness. They also demonstrate how the usual extremes used in modeling can be fruitfully transcended.

Party competition for votes in free and fair elections involves complex interactions by multiple actors in political landscapes that are continuously evolving, yet classical theoretical approaches to the subject leave many important questions unanswered. Here Michael Laver and Ernest Sergenti offer the first comprehensive treatment of party competition using the computational techniques of agent-based modeling. This exciting new technology enables researchers to model competition between several different political parties for the support of voters with widely varying preferences on many different issues. Laver and Sergenti model party competition as a true dynamic process in which political parties rise and fall, a process where different politicians attack the same political problem in very different ways, and where today's political actors, lacking perfect information about the potential consequences of their choices, must constantly adapt their behavior to yesterday's political outcomes. Party Competition shows how agent-based modeling can be used to accurately reflect how political systems really work. It demonstrates that politicians who are satisfied with relatively modest vote shares often do better at winning votes than rivals who search ceaselessly for higher shares of the vote. It reveals that politicians who pay close attention to their personal preferences when setting party policy often have more success than opponents who focus solely on the preferences of voters, that some politicians have idiosyncratic "valence" advantages that enhance their electability--and much more.

The philosophy of the social sciences considers the underlying explanatory powers of the social

(or human) sciences, such as history, economics, anthropology, politics, and sociology. The type of questions covered includes the methodological (the nature of observations, laws, theories, and explanations) to the ontological -- whether or not these sciences can explain human nature in a way consistent with common-sense beliefs. This Handbook is a major, comprehensive look at the key ideas in the field, is guided by several principles. The first is that the philosophy of social science should be closely connected to, and informed by, developments in the sciences themselves. The second is that the volume should appeal to practicing social scientists as well as philosophers, with the contributors being both drawn from both ranks, and speaking to ongoing controversial issues in the field. Finally, the volume promotes connections across the social sciences, with greater internal discussion and interaction across disciplinary boundaries.

Although many have tried, the spontaneity of the Arab Spring uprisings and the unpredictability of its diverse geographical outcomes have resisted explanation. For social scientists, part of the challenge has been how to effectively measure and analyze the empirical data, while another obstacle has been a lack of attention to the worldviews, value orientations, and long-term concerns from the people of the Middle East and North Africa. In order to meet these challenges head-on, Mansoor Moaddel and Michele J. Gelfand have assembled an international team of experts to explore and employ a new and diverse set of frameworks in order to explain the dynamics of cross-national variation, values, political engagement, morality, and development in these regions. To this end, the authors address a wide range of questions, such as: To what extent do recent events reflect changes in values among the Middle Eastern publics? Are youth uniformly more supportive of change than the rest of the population? To what extent are changes in values connected to changes in identities? How do we explain the process of change in the long term? As Moaddel and Gelfand remark in their book's introduction, "Our hope is that this collective effort will not only contribute to the development of the social sciences in the Middle East and North Africa, but also to practical political actions and public policies that serve social tolerance and harmony, peace, and economic prosperity for the people of the region."

A Handbook of Computational Methods and Models for Anticipating Economic, Social, Political and Security Effects in International Interventions

Bargaining

Artificial Economics

Explorations of Physical, Human, Economic, and Social Phenomena

Models of Political Economy

Attention and Performance XXIII

Buchanan and Tullock's seminal work, The Calculus of Consent, linked economic methodology to substantive questions in political science. Among the major contributions of their book is a connection between constitutional decision making and contractarianism, a philosophical tradition that proponents believe can give institutions legitimacy. In other words, a major contribution of their book is a clear connection between empirical decision making and normative principles. The current book formalizes and extends their foundational ideas as it attempts to show how economic and philosophical arguments about the "best" voting rules can be used to improve constitutional design. It informs debates about constitutional political economy in comparative politics, democratic theory, and public choice. Political scientists often ask questions about what causes a nation to seek a new constitution, how constitutions are made, and what factors allow for corrupt decision making. The Calculus of Consent and Constitutional Design bridges the gap between normative questions about which institutions are most efficient and fair and empirical questions about how constitutions are formed. This provides a benchmark to help create better constitutions and informs empirical research about what institutions are most likely to succeed. The book begins by showing how contractarian ideals can be used to justify choices about decision-making. It then carefully defines several concepts employed by Buchanan and Tullock and shows why the relationships between these concepts may not be as closely linked as Buchanan and Tullock first thought. This provides a backdrop for analyzing the three phases of constitutional decision-making: 1) the constitutional phase, where rules for constitutional decision making must be justified; 2) the legislative phase, where the optimal k-majority rule is analyzed; and 3) the electoral phase, where the optimal voting rule for large electorates and open alternatives are determined. These phases differ by context and sources of legitimacy. Computational models and analytic techniques are introduced in each of these chapters. Finally, the book concludes with statements about the significance of the research for the creation of constitutions more broadly.

This book is a compilation of a selected subset of research articles presented at the Eighth INFORMS Computing Society Conference, held in Chandler, Arizona, from January 8 to 10, 2003. The articles in this book represent the diversity and depth of the interface between ORiMS (operations research and the management sciences) and CS/AI (computer science and artificial intelligence). This volume starts with two papers that represent the reflective and integrative thinking that is critical to any scientific discipline. These two articles present philosophical perspectives on computation, covering a variety of traditional and newer methods for modeling, solving, and explaining mathematical models. The next set includes articles that study machine learning and computational heuristics, and is followed by articles

that address issues in performance testing of solution algorithms and heuristics. These two sets of papers demonstrate the richness of thought that takes place at the ORiMS and CSI AI interface. The final set of articles demonstrates the usefulness of these and other methods at the interface towards solving problems in the real world, covering e-commerce, workflow, electronic negotiation, music, parallel computation, and telecommunications. The articles in this collection represent the results of cross-fertilization between ORiMS and CSI AI, making possible advances that could have not been achieved in isolation. The continuing aim ofthe INFORMS Computing Society and this research conference is to invigorate and further develop this interface.

The world is in turmoil, the dynamics of political economy seem to have entered a phase where a ‘return to normal’ cannot be expected. Since the financial crisis, conventional economic theory has proven itself to be rather helpless and political decision makers have become suspicious about this type of economic consultancy. This book offers a different approach. It promises to describe political and economic dynamics as interwoven as they are in real life and it adds to that an evolutionary perspective. The latter allows for a long-run view, which makes it possible to discuss the emergence and exit of social institutions. The essays in this volume explore the theoretical and methodological aspects of evolutionary political economy. In part one, the authors consider the foundational contributions of some of the great economists of the past, while the second part demonstrates the benefits of adopting the methods of computer simulation and agent-based modelling. Together, the contributions to this volume demonstrate the richness, diversity and great explanatory potential of evolutionary political economy. This volume is extremely useful for social scientists in the fields of economics, politics, and sociology who are interested to learn what evolutionary political economy is, how it proceeds and what it can provide.

This volume presents an analysis of the problems and solutions of the market mockery of the democratic collective decision-choice system with imperfect information structure composed of defective and deceptive structures using methods of fuzzy rationality. The book is devoted to the political economy of rent-seeking, rent-protection and rent-harvesting to enhance profits under democratic collective decision-choice systems. The toolbox used in the monograph consists of methods of fuzzy decision, approximate reasoning, negotiation games and fuzzy mathematics. The monograph further discusses the rent-seeking phenomenon in the Schumpeterian and Marxian political economies where the rent-seeking activities transform the qualitative character of the general capitalism into oligarchic socialism and making the democratic collective decision-choice system as an ideology rather than social calculus for resolving conflicts in preferences in the collective decision-choice space without violence.

Modeling and Visualization of Complex Systems and Enterprises

Agent-Based Computational Economics

A Model Discipline
Values, Political Action, and Change in the Middle East and the Arab Spring
The Oxford Handbook of Philosophy of Social Science
Party Competition

Sociological theories of crime include: theories of strain blame crime on personal stressors; theories of social learning blame crime on its social rewards, and see crime more as an institution in conflict with other institutions rather than as in- vidual deviance; and theories of control look at crime as natural and rewarding, and explore the formation of institutions that control crime. Theorists of corruption generally agree that corruption is an expression of the Patron□Client relationship in which a person with access to resources trades resources with kin and members of the community in exchange for loyalty. Some approaches to modeling crime and corruption do not involve an explicit simulation: rule based systems; Bayesian networks; game theoretic approaches, often based on rational choice theory; and Neoclassical Econometrics, a rational choice-based approach. Simulation-based approaches take into account greater complexities of interacting parts of social phenomena. These include fuzzy cognitive maps and fuzzy rule sets that may incorporate feedback; and agent-based simulation, which can go a step farther by computing new social structures not previously identified in theory. The latter include cognitive agent models, in which agents learn how to perceive their en- ronment and act upon the perceptions of their individual experiences; and reactive agent simulation, which, while less capable than cognitive-agent simulation, is adequate for testing a policy□s effects with existing societal structures. For example, NNL is a cognitive agent model based on the REPAST Simphony toolkit.

This book aims to answer two questions that are fundamental to the study of agent-based economic models: what is agent-based computational economics and why do we need agent-based economic modelling of economy? This book provides a review of the development of agent-based computational economics (ACE) from a perspective on how artificial economic agents are designed under the influences of complex sciences, experimental economics, artificial intelligence, evolutionary biology, psychology, anthropology and neuroscience. This book begins with a historical review of ACE by tracing its origins. From a modelling viewpoint, ACE brings truly decentralized procedures into market analysis, from a single market to the whole economy. This book also reviews how experimental economics and artificial intelligence have shaped the development of ACE. For the former, the book discusses how ACE models can be used to analyse the economic consequences of cognitive capacity, personality and cultural inheritance. For the latter, the book covers the various tools used to construct artificial adaptive agents, including reinforcement learning, fuzzy decision rules, neural networks, and evolutionary computation. This book will be of interest to graduate students researching computational economics, experimental economics, behavioural economics, and research methodology.

This book is an account of modeling and idealization in modern scientific practice, focusing on concrete, mathematical, and computational models. The main topics of this book are the nature of models, the practice of modeling, and the nature of the relationship between models and real-world phenomena. In order to elucidate the model/world relationship, Weisberg develops a novel account of similarity called weighted feature matching.

Provides a framework to demonstrate how to unify formal, theoretical and empirical analysis through various interdisciplinary examples.

Computational and Mathematical Modeling in the Social Sciences
The Oxford Handbook of Political Methodology

A Cyprus Symposium
The Economy As An Evolving Complex System II
Using Models to Understand the World
Governance by Indicators

The economics literature on industry dynamics contains a wide array of empirical works identifying a set of stylized facts. There have been several attempts at constructing analytical models to explain some of these regularities. These attempts are highly stylized and limited in scope to keep the analyses tractable. A general model of industry evolution capable of generating firm and industry behaviour that can match the data is needed. This book endeavours to explain many well-documented aspects of the evolution of industries over time. It uses an agent-based computational model in which artificial industries are created and grown to maturity in silico. While the firms in the model are assumed to have bounded rationality, they are nevertheless adaptive in the sense that their experience-based R&D efforts allow them to search for improved technologies. Given a technological environment subject to persistent and unexpected external shocks, the computationally generated industry remains in a perennial state of flux. The main objective of this study is to identify patterns that exist in the movements of firms as the industry evolves over time along the steady state in which the measured behaviour of the firms and the industry stochastically fluctuate around steady means. The computational model developed in this book is able to replicate many of the stylized facts from the empirical industrial organization literature, particularly as the facts pertain to the dynamics of firm entry and exit. Furthermore, the model allows examination of cross-industry variations in entry and exit patterns by systematically varying the characteristics of the market and the technological environment within which the computationally generated industry evolves. The model demonstrates that the computational approach based on boundedly rational agents in a dynamic setting can be useful and effective in carrying out both positive and normative economic analysis.

Offering a unique picture of recent developments in a range of non-conventional theoretical approaches in economics, this book introduces readers to the study of Analytical Political Economy and the changes within the subject. Includes a wide range of topics and theoretical approaches that are critically and thoroughly reviewed Contributions within the book are written according to the highest standards of rigor and clarity that characterize academic work Provides comprehensive and well-organized surveys of cutting-edge empirical and theoretical work covering an exceptionally wide range of areas and fields Topics include macroeconomic theories of growth and distribution; agent-based and stock-flow consistent models; financialization and Marxian price and value theory Investigates exploitation theory; trade theory; the role of expectations and 'animal spirits' on macroeconomic performance as well as empirical research in Marxian economics

Handbook of Computational Economics: Heterogeneous Agent Modeling, Volume Four, focuses on heterogeneous agent models, emphasizing recent advances in macroeconomics (including DSGE), finance, empirical validation and experiments, networks and related applications. Capturing the advances made since the publication of Volume Two (Tesfatsion & Judd, 2006), it provides high-level literature with sections devoted to Macroeconomics, Finance, Empirical Validation and Experiments, Networks, and other applications, including Innovation Diffusion in Heterogeneous Populations, Market Design and Electricity Markets, and a final section on Perspectives on Heterogeneity. Helps readers fully understand the dynamic properties of realistically rendered economic systems Emphasizes detailed specifications of structural conditions, institutional arrangements and behavioral dispositions Provides broad assessments that can lead researchers to recognize new synergies and opportunities
Indicators and rankings are widely used by governments and international organizations to assess the effectiveness, efficiency, and success of policy decisions. The role of indicators is however little examined. This book closes this gap by evaluating the creation of indicators, their impact on policy decisions, and the implications of their use.
The Political Economy of Democracy
Modelling Natural Action Selection
Democratic Politics and Party Competition
Analytical Political Economy
Essays in Dynamic Macroeconomics
Fuzziness, Democracy, Control and Collective Decision-choice System: A Theory on Political Economy of Rent-Seeking and Profit-Harvesting

A new view of the economy as an evolving, complex system has been pioneered at the Santa Fe Institute over the last ten years, This volume is a collection of articles that shape and define this view?a view of the economy as emerging from the interactions of individual agents whose behavior constantly evolves, whose strategies and actions are always adapting.The traditional framework in economics portrays activity within an equilibrium steady state. The interacting agents in the economy are typically homogenous, solve well-defined problems using perfect rationality, and act within given legal and social structures. The complexity approach, by contrast, sees economic activity as continually changing?continually in process. The interacting agents are typically heterogeneous, they must cognitively interpret the problems they face, and together they create the structures?markets, legal and social institutions, price patters, expectations?to which they individually react. Such structures may never settle down. Agents may forever adapt and explore and evolve their behaviors within structures that continually emerge and change and disappear?structures these behaviors co-create. This complexity approach does not replace the equilibrium one?it complements it.The papers here collected originated at a recent conference at the Santa Fe Institute, which was called to follow up the well-known 1987 SFI conference organized by Philip Anderson, Kenneth Arrow, and David Pines. They survey the new study of

complexity and the economy. They apply this approach to real economic problems and they show the extent to which the initial vision of the 1987 conference has come to fruition.

Models of Political Economy will introduce students to the basic methodology of political economics. It covers all core theories as well as new developments including: decision theory game theory mechanism design games of asymmetric information. Hannu Nurmi's text will prove to be invaluable to all students who wish to understand this increasingly technical field.

Political methodology has changed dramatically over the past thirty years, and many new methods and techniques have been developed. Both the Political Methodology Society and the Qualitative/Multi-Methods Section of the American Political Science Association have engaged in ongoing research and training programs that have advanced quantitative and qualitative methodology. The Oxford Handbook of Political Methodology presents and synthesizes these developments. The Handbook provides comprehensive overviews of diverse methodological approaches, with an emphasis on three major themes. First, specific methodological tools should be at the service of improved conceptualization, comprehension of meaning, measurement, and data collection. They should increase analysts' leverage in reasoning about causal relationships and evaluating them empirically by contributing to powerful research designs. Second, the authors explore the many different ways of addressing these tasks: through case-studies and large-n designs, with both quantitative and qualitative data, and via techniques ranging from statistical modelling to process tracing. Finally, techniques can cut across traditional methodological boundaries and can be useful for many different kinds of researchers. Many of the authors thus explore how their methods can inform, and be used by, scholars engaged in diverse branches of methodology.

Request a FREE 30-day online trial to this title at www.sagepub.com/freetrial With entries from leading international scholars from around the world, this eight-volume encyclopedia offers the widest possible coverage of key areas both regionally and globally. The International Encyclopedia of Political Science provides a definitive, comprehensive picture of all aspects of political life, recognizing the theoretical and cultural pluralism of our approaches and including findings from the far corners of the world. The eight volumes cover every field of politics, from political theory and methodology to political sociology, comparative politics, public policies, and international relations. Entries are arranged in alphabetical order, and a list of entries by subject area appears in the front of each volume for ease of use. The encyclopedia contains a detailed index as well as extensive bibliographical references. Filling the need for an exhaustive overview of the empirical findings and reflections on politics, this reference resource is suited for undergraduate or graduate students who wish to be informed effectively and quickly on their field of study, for scholars seeking information on relevant research findings in their area of specialization or in related fields, and for lay readers who may lack a formal background in political science but have an interest in the field nonetheless. The International Encyclopedia of Political Science provides an essential, authoritative guide to the state of political science at the start of the 21st century and for decades to come, making it an invaluable resource for a global readership, including researchers, students, citizens, and policy makers. The encyclopedia was developed in partnership with the International Political Science Association. Key Themes: Case and Area

Studies Comparative Politics, Theory, and Methods Democracy and Democratization Economics Epistemological Foundations Equality and Inequality Gender and Race/Ethnicity International Relations Local Government Peace, War, and Conflict Resolution People and Organizations Political Economy Political Parties Political Sociology Public Policy and Administration Qualitative Methods Quantitative Methods Religion

Decision Making, Affect, and Learning

Heterogeneous Agent Modeling

Computational Modeling

Simulation and Similarity

Interfaces in Computer Science and Operations Research

The Economy As A Complex Evolving System Ii

The use of innovative computational models in political economic research as a complement to traditional analytical methodologies. Researchers are increasingly turning to computational methods to study the dynamic properties of political and economic systems. Politicians, citizens, interest groups, and organizations interact in dynamic, complex environments, and the static models that are predominant in political economy are limited in capturing fundamental features of economic decision making in modern democracies. Computational models--numerical approximations of equilibria and dynamics that cannot be solved analytically--provide useful insight into the behavior of economic agents and the aggregate properties of political systems. They serve as a valuable complement to existing mathematical tools.This book offers some of the latest research on computational political economy. The focus is on theoretical models of traditional problems in the field. Each chapter presents an innovative model of interaction between economic agents. Topics include voting behavior, candidate position taking, special interest group contributions, macroeconomic policy making, and corporate decision making.

The explosive growth in computational power over the past several decades offers new tools and opportunities for economists. This handbook volume surveys recent research on Agent-based Computational Economics (ACE), the computational study of economic processes modeled as dynamic systems of interacting agents. Empirical referents for "agents" in ACE models can range from individuals or social groups with learning capabilities to physical world features with no cognitive function. Topics covered include: learning; empirical validation; network economics; social dynamics; financial markets; innovation and technological change; organizations; market design; automated markets and trading agents; political economy; social-ecological systems; computational laboratory development; and general methodological issues. *Every volume contains contributions from leading researchers *Each Handbook presents an accurate, self-contained survey of a particular topic *The series provides comprehensive and accessible surveys

In this introduction to computational modelling the authors provide a concise description of computational methods, including dynamic simulation, knowledge-based models and machine learning, as a single broad class of research tools.

An introductory overview of the methods, models and interdisciplinary links of artificial economics. Addresses the differences between the assumptions and methods of artificial economics and those of mainstream economics. This is one of the first books to

fully address, in an intuitive and conceptual form, this new way of doing economics.
Revisiting Hayek's Political Economy
Handbook of Computational Economics
Empirical Implications of Theoretical Models in Political Science
Complex Adaptive Systems
Current Research and Future Directions
Estimating Impact

Political scientists use models to investigate and illuminate causal mechanisms, generate comparative data, and more. But how do we justify and rationalize the method? Why test predictions from a deductive, and thus truth-preserving, system? Primo and Clarke tackle these central questions in this novel work of methodology.

Papers originally presented at a workshop conference convened in Stowe, Vermont on July 13-17 2008, as part of the Attention and Peformance series.

This book presents latest research in the field of Political Economy, dealing with the integration of economics and politics and the way institutions affect social decisions. The focus is on innovative topics such as an institutional analysis based on case studies; the influence of activists on political decisions; new techniques for analyzing elections, involving game theory and empirical methods.

This book presents the development of a theory of social goal-objective formation and its relationship to national interest and social vision under a democratic decision-choice system with imperfect information structure. It provides a framework for the application of fuzzy logic and its mathematics to the analysis in resolving conflicts in individual preferences in the collective decision-choice space without violence. The book demonstrates how to use fuzzy logic and its mathematics in the study of economics, social sciences and other complex systems. It also presents the use of collaborative tools of opposites, duality, polarity, continuum in fuzzy paradigm with its logic, laws of thought and mathematics in developing a new approach to the theory of political economy in order to enhance the constructs of social decision-choice theory.

An Introduction to Computational Models of Social Life
How the Idea Originated and Where It Is Going
Computational Models in Political Economy
Social Goal-Objective Formation, Democracy and National Interest
The Calculus of Consent and Constitutional Design
International Encyclopedia of Political Science

Offers an overview of mathematical modeling concentrating on game theory, statistics and computational modeling.

Action selection is the task of doing the right thing at the right time. It requires the assessment of available alternatives, executing those most appropriate, and resolving conflicts among competing goals and possibilities. Using advanced computational modelling, this book explores cutting-edge research into action selection in nature from a wide range of disciplines, from neuroscience to behavioural ecology, and even political science. It delivers new insights into both detailed and systems-level attributes of natural intelligence and demonstrates advances in methodological practice. Contributions from leading researchers cover issues including whether biological action selection is optimal, neural substrates for action selection in the vertebrate brain, perceptual

selection in decision making, and interactions between group and individual action selection. This first integrated review of action selection in nature contains a balance of review and original research material, consolidating current knowledge into a valuable reference for researchers while illustrating potential paths for future studies.

Volume 21 of Advances in Austrian Economics exemplifies this focus by highlighting key research from the Austrian tradition of economics with other research traditions in economics and related areas.

This volume brings together leading contributors in the field of macroeconomics who explain how to implement the computational techniques needed to solve dynamic economics models. The contributors cover a broad range of techniques.

Computational Methods for the Study of Dynamic Economies

Advances in Political Economy

Institutions, Modelling and Empirical Analysis

Computational Modeling and Problem Solving in the Networked World

Theory and Method of Evolutionary Political Economy