Record Nr. UNINA9910337577703321 Autore da Rocha Costa Antônio Carlos Titolo A Variational Basis for the Regulation and Structuration Mechanisms of Agent Societies / / by Antônio Carlos da Rocha Costa Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-16335-0 Edizione [1st ed. 2019.] 1 online resource (149 pages) Descrizione fisica 006.3 Disciplina 006.30285436 Soggetti Artificial intelligence Application software Artificial Intelligence Computer Appl. in Social and Behavioral Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1. Introduction -- 2. The Perspectives -- 3. Agent Societies -- 4. Core Operatory Structures of Agent Societies -- 5. A Variational Basis for the Regulation and Structuration Mechanisms of Core Operatory Structures -- 6. Regulation of Core Operatory Structures of Agent Societies -- 7. Structuration of Core Operatory Structures of Agent Societies -- 8. Case Study -- 9. Conclusion: Some Work Yet to Be Done -- References Sommario/riassunto This book introduces exchange process-driven social networks as a foundation for the core operational structures of the particular type of multi-agent systems we call agent societies. The core operational structures of agent societies encompass, in hierarchies of exchange process-driven social networks, all the behaviors and interactions that organizational actors (social roles, organizational units and social subsystems) perform in those societies, as well as the behaviors and interactions of the regulation and structuration mechanisms operating in those core operational structures. The variational basis of the overall

framework, introduced in the book, allows for the systematic explanation of the regulation and structuration processes of core

operational structures of agent societies, from the populational and micro-organizational to the macro-organizational level. This book shall be useful to people developing computational applications based on the concept of agent societies and for those applying the concept of agent societies to the formal modeling and simulation of human and animal societies.