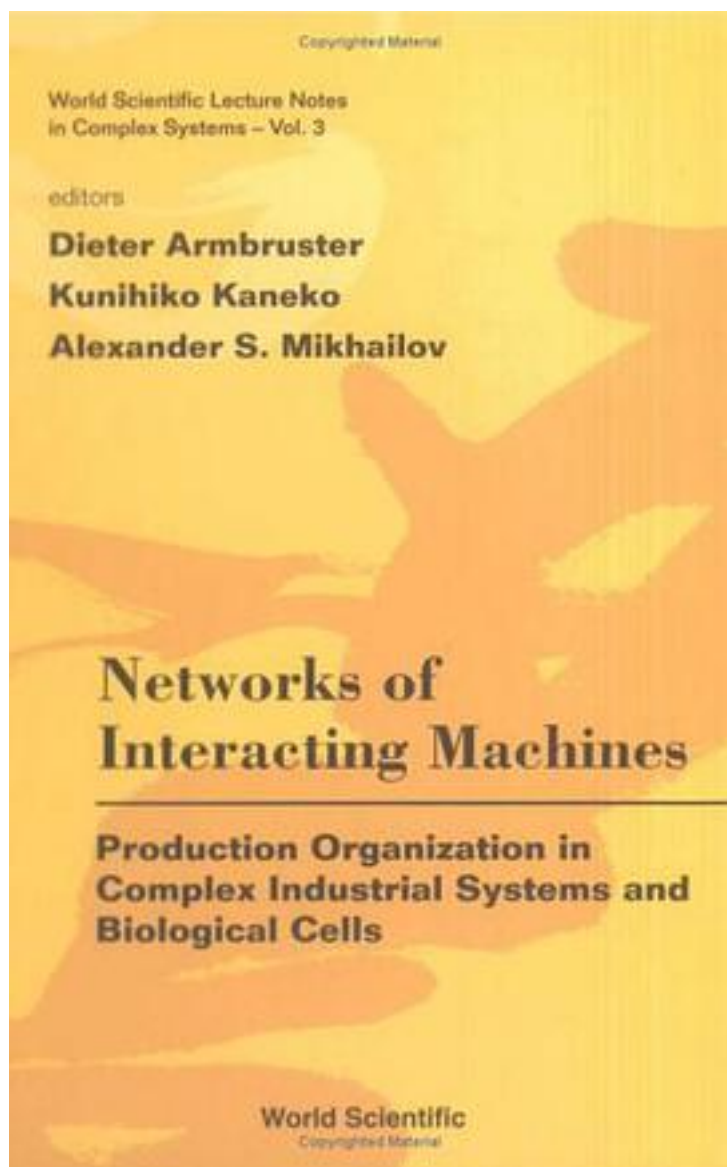


Networks of Interacting Machines



[Networks of Interacting Machines_ 下载链接1](#)

著者:Mikhailov, Alexander S. 编

出版者:World Scientific Publishing Company

出版时间:2005-10-30

装帧:Hardcover

isbn:9789812564986

This review volume is devoted to a discussion of analogies and differences of complex production systems - natural, as in biological cells, or man-made, as in economic systems or industrial production. Taking this unified look at production is based on two observations: Cells and many biological networks are complex production units that have evolved to solve production problems in a reliable and optimal way in a highly stochastic environment. On the other hand, industrial production is becoming increasingly complex and often hard to predict. As a result, modeling and control of such production networks involve many different spatial and temporal scales and decision policies for many different structures. The common themes of industrial and biological production include evolution and optimization, synchronization and self-organization, robust operation despite high stochasticity, and hierarchical dynamics. The mathematical techniques used come from dynamical systems theory, transport equations, control theory, pattern formation, graph theory, discrete event simulations, stochastic processes, and others. The application areas range from semiconductor production to supply chains, protein networks, slime molds, social networks, and whole economies.

作者介绍:

目录:

[Networks of Interacting Machines_下载链接1_](#)

标签

评论

[Networks of Interacting Machines_下载链接1_](#)

书评

[Networks of Interacting Machines_下载链接1](#)