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                        Giovanna Di Marzo Serugendo, Anthony Karageorgos, Radhika Nagpal

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   Disciplina   005.1

   Soggetti   Artificial intelligence
                        Computer communication systems
                        Software engineering
                        Operating systems (Computers)
                        Information storage and retrieval
                        Computers and civilization
                        Artificial Intelligence
                        Computer Communication Networks
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   Lingua di pubblicazione   Inglese

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   Note generali   "The book comprises revised versions of papers presented at the
                        Engineering Self-organising Applications (ESOA 2004) workshop, held
                        during the Autonomous Agents and Multi-agent Systems conference
                        (AAMAS 2004) in New York in July 2004, and selected invited papers
                        from leading contributors in the self-organisation field"--Pref., p. vi.

   Nota di bibliografia   Includes bibliographical references and index.

   Nota di contenuto   State of the Art -- Emergence Versus Self-Organisation: Different
                        Concepts but Promising When Combined -- About Engineering
                        Complex Systems: Multiscale Analysis and Evolutionary Engineering --
                        Adaptive Information Infrastructures for the e-Society -- Synthesis and
                        Design Methods -- Agent-Based Modelling of Stem Cell Self-
                        organisation in a Niche -- Ambient Cognitive Environments and the

Distributed Synthesis of Visual Ambiences -- Using the Experimental Method to Produce Reliable Self-Organised Systems -- An Architecture for Self-Organising Evolvable Virtual Machines -- Self-Organising, Open and Cooperative P2P Societies – From Tags to Networks -- Self-ssembly and Robots -- Self-Organizing Spatial Shapes in Mobile Particles: The TOTA Approach -- Directed Self-assembly of 2-Dimensional Mesoblocks Using Top-Down/Bottom-Up Design -- Analysis of a Stochastic Model of Adaptive Task Allocation in Robots -- Emergent Team Formation: Applying Division of Labour Principles to Robot Soccer -- Stigmergy and Related Topics -- Analyzing Stigmergic Learning for Self-Organizing Mobile Ad-Hoc Networks (MANET's) -- Emergent Forecasting Using a Stigmergy Approach in Manufacturing Coordination and Control -- IDReAM: Intrusion Detection and Response Executed with Agent Mobility -- Managing Dynamic Flows in Production Chains Through Self-Organization -- Industrial Applications -- A Self-Organizing and Fault-Tolerant Wired Peer-to-Peer Sensor Network for Textile Applications -- Applying Distributed Adaptive Optimization to Digital Car Body Development -- Adaptive Service Placement Algorithms for Autonomous Service Networks.

| Sommario/riassunto | Self-organisation, self-regulation, self-repair, and self-maintenance are promising conceptual approaches to deal with the ever increasing complexity of distributed interacting software and information handling systems. Self-organising applications are able to dynamically change their functionality and structure without direct user intervention to respond to changes in requirements and the environment. This book comprises revised and extended papers presented at the International Workshop on Engineering Self-Organising Applications, ESOA 2004, held in New York, NY, USA in July 2004 at AAMAS as well as invited papers from leading researchers. The papers are organized in topical sections on state of the art, synthesis and design methods, self-assembly and robots, stigmergy and related topics, and industrial applications. |