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Collana	Intelligent systems reference library, , 1868-4408 ; ; volume 271
Disciplina	006.3
Soggetti	Computational intelligence Artificial intelligence Engineering - Data processing Human-computer interaction Computational Intelligence Artificial Intelligence Data Engineering
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction a degenerated design by matching -- Matching Automata as a Model of Self Actioning Systems -- A Classification of Instances with Graph Equivalence -- A Visualization of Symmetry in Matchings -- Modeling Biological Systems Switching in Visual Recognition -- Modeling Biological Systems Switching in Auditory Recognition -- Collective Identity and Additive Symmetry -- Biological Degeneracy and System Reliability -- Designing Artificial Systems with Degeneracy Matching Automata for Collective Survivability -- Matching Automata and the Self Repairing Network -- Conclusion.
Sommario/riassunto	What does the future of AI hold—a supportive partner or a rival with its own illusion of self? This book explores this critical question by introducing degenerated design, a groundbreaking framework for creating resilient, adaptive systems inspired by natural processes like immunity and collective intelligence. Rejecting traditional optimization-focused AI paradigms, this approach embraces imperfection and diversity as essential for building intelligent systems that thrive in

dynamic environments. Spanning industries such as robotics, automotive, biotechnology, quantum computing, and space exploration, the book also ventures into the cognitive dimensions of AI. Inspired by human sensory systems, it proposes a two-sided model, possibly extendable to that of consciousness, exploring the interplay between passive automata and active intentional agents. It delves into the origins and illusions of self-consciousness, examining its survival merits and dangers in both biological and artificial contexts. A must-read for system designers, CEOs, and AI researchers, this book also challenges academics and students to rethink the future of generative AI and antiAI systems. This book is both a technical blueprint and a philosophical exploration of AI's potential to liberate or confront humanity. The future of human AI coexistence starts here.
