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Nota di contenuto	1.Solving the initial value problem for cellular automata by pattern decomposition -- 2.Composing a rotary element in simple reversible cellular automata to make reversible computers -- 3.Evolution of a model -- 4.Extensions on the analysis of elementary cellular automata with process graphs -- 5.Real-Time Pattern Generation by One-Dimensional Cellular Automata -- 6.Versatile Topology for Two–Dimensional Cellular Automata -- 7.A Class of the Smallest 4-state FSSP Partial Solutions for Rings– A Survey -- 8.Loop Patterns Formed by Cellular Automata -- 9.Experimental Classification of Elementary Cellular Automata using Markov Chains -- 10.Developmental Construction of Face-centered Cubic Cellular Automata Inspired by Excitable Media -- 11.Synchronization and Control of Cellular Automata -- 12.A study on the composition of elementary cellular automata -- 13.Symbolic Dynamics of Cellular Automata -- 14.Recent insights into number-conserving cellular automata -- 15.Entropy of linear CA over the ring Zm -- 16.An Invitation to Number-Conserving Cellular Automata.
Sommario/riassunto	This book embarks on a journey through the captivating universe of cellular automata and discover its distinct realm, characterised by discrete time, space, and states, where cells form regular patterns and

offer insights into complex systems across various domains. From theoretical foundations to practical applications, each chapter unveils innovative ideas and implementations, from solving initial value problems to exploring reversible computing and real-time pattern generation. Explore hyperbolic spaces, analyse elementary automata, and delve into network growth dynamics. Shedding light on synchronisation, control, and computational structures, this book is an invaluable resource for computer scientists, modellers, mathematicians, engineers, physicists, and professionals across disciplines. Immerse yourself in the intricate complexities and boundless potential of cellular automata, whether unravelling pedestrian dynamics or exploring cryptographic applications.