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Nota di contenuto	Intro -- Preface -- Organization -- Invited Talks -- Decidability Problems for Self-induced Systems Generated by a Substitution -- Concurrency, Histories, and Nets -- Spiking Neural P Systems: A Class of Parallel Computing Models Inspired by Neurons -- Towards Formal Verification of Computations and Hypercomputations in Relativistic Physics -- Contents -- Invited Papers -- Decidability Problems for Self-induced Systems Generated by a Substitution -- 1 Substitutions Among Mathematics and Computer Science -- 2 The Geometry of One-Dimensional Substitutions -- 3 Undecidability of GIFS Topological Properties -- 4 Decidability of Rauzy Fractals Properties -- 5 Extending the Framework of Rauzy Fractals -- References -- Towards Formal Verification of Computations and Hypercomputations in Relativistic

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## Sommario/riassunto

This book constitutes the refereed proceedings of the 7th International Conference on Machines, Computations, and Universality, MCU 2015, held in Famagusta, North Cyprus, in September 2015. The 10 revised full papers presented together with 4 invited talks were carefully

reviewed and selected from 23 submissions. MCU explores computation in the setting of various discrete models (Turing machines, register machines, cellular automata, tile assembly systems, rewriting systems, molecular computing models, neural models, etc.) and analog and hybrid models (BSS machines, infinite time cellular automata, real machines, quantum computing, etc.).

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