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Collana	De Gruyter expositions in mathematics, , 0938-6572 ; ; 49
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Altri autori (Persone)	KhrennikovA. IU <1958-> (Andrei IUrevich)
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Nota di contenuto	Frontmatter -- Contents -- Chapter 1. Algebraic and number-theoretic background -- I. The Commutative Non-Archimedean Dynamics -- Chapter 2. Dynamics on algebraic structures -- Chapter 3. p-adic analysis -- Chapter 4. p-adic ergodic theory -- Chapter 5. Asymptotic distribution of cycles -- II. The Non-Commutative Non-Archimedean Dynamics -- Chapter 6. Basics of polynomial dynamics on groups -- Chapter 7. Ergodic polynomials over groups with operators -- III. Applications -- Chapter 8. Automata, computers, combinatorics -- Chapter 9. Pseudorandom numbers -- Chapter 10. Stream ciphers -- Chapter 11. Structure of trajectories -- Chapter 12. p-adic probability theory -- Chapter 13. p-adic valued quantization -- Chapter 14. m-adic modeling in cognitive science and psychology -- Chapter 15. Neuronal hierarchy behind the ultrametric mental space -- Chapter 16. Gene expression from dynamics in the 2-adic space -- Chapter 17. Genetic code on the diadic plane -- Backmatter
Sommario/riassunto	This monograph presents recent developments of the theory of algebraic dynamical systems and their applications to computer sciences, cryptography, cognitive sciences, psychology, image analysis, and numerical simulations. The most important mathematical results presented in this book are in the fields of ergodicity, p-adic numbers,

and noncommutative groups. For students and researchers working on the theory of dynamical systems, algebra, number theory, measure theory, computer sciences, cryptography, and image analysis.
