

1. Record Nr.	UNINA9910480532703321
Titolo	Tropical and idempotent mathematics and applications : International Workshop on Tropical and Idempotent Mathematics, August 26-31, 2012, Independent University, Moscow, Russia / / G. L. Litvinov, S. N. Sergeev, editors
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , 2014 ©2014
ISBN	1-4704-1684-0
Descrizione fisica	1 online resource (300 p.)
Collana	Contemporary Mathematics, , 1098-3627 ; ; 616
Disciplina	516.3/5
Soggetti	Tropical geometry Geometry, Algebraic Idempotents Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	""Preface""; ""In Memory of Grigory Litvinov""; ""Tropical Cramer determinants revisited""; ""1. Introduction""; ""2. Semirings with a symmetry and a modulus""; ""3. Combinatorial properties of semirings""; ""4. Elimination in semirings and Cramer theorem""; ""5. Existence of solutions of tropical linear systems""; ""6. Homogeneous systems: the generalized Gondran-Minoux theorem""; ""7. Systems of balances and intersections of signed hyperplanes""; ""8. Computing all Cramer Permanents: tropical Jacobi versus transportation approach""; ""9. Computing determinants""; ""Acknowledgment"" ""References""""An approximation of Hopf-Lax type formula via idempotent analysis""; ""1. Introduction""; ""2. Basic notions of idempotent analysis""; ""3. Approximation formulas to solutions of Hamilton-Jacobi equations""; ""References""; ""Ideals of MV-semirings and MV-algebras""; ""1. Introduction""; ""2. Preliminaries""; ""3. Ideals, congruences and quotients""; ""4. The frame of radical ideals of an MV-semiring""; ""5. The frame of radical ideals of an MV-algebra""; ""6. The frames of open sets of $\text{Spec}(\)$ and of $\text{Spec}(\)''$; ""7. The frame of

open sets of $\text{Max}()$ "; ""References""
""2. Optimal solution"""; ""3. Approximate solution""; ""4. Conclusions"";
""References""; ""Algebraic structures of tropical mathematics""; ""1.
Introduction""; ""2. Algebraic background""; ""3. The layered structure"";
""4. Matrices and linear algebra""; ""5. Identities of semirings, especially
matrices""; ""References""; ""Parametric dequantization, tropical
reduction of hyperfields and steady states of AC electrical networks"";
""1. Introduction""; ""2. Real tropical polynomials over a semifield""; ""3.
Parametric limits of polynomials with various conditions on their
coefficients""
""4. Complex tropical polynomials over hyperfield and tropical
reduction"""; ""5. The power balance equations in AC network""; ""6.
Tropical reduction of the power balance equations, Foster coefficients
and minimal spanning trees""; ""7. Concluding remarks"";
""References""; ""A constrained tropical optimization problem: Complete
solution and application example""; ""1. Introduction""; ""2. Preliminary
definitions and results""; ""3. Linear inequalities""; ""4. An optimization
problem""; ""5. Applications to optimal scheduling"";
""Acknowledgments""; ""References""
""On the mathematical foundations of classical thermodynamics""
