#### ANALYSIS AND APPLICATIONS, VOL. 22, 2017

#### TABLE OF CONTENTS, JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, VOL. 22, NO. 1, 2017

Some Perturbed Versions of the Generalized Trapezoid Inequality for Functions of Bounded Variation, Wenjun Liu and Jaekeun Park,11
A Companion of Ostrowski Like Inequality and Applications to Composite Quadrature Rules, Wenjun Liu and Jaekeun Park,
A Modified Shift-Splitting Preconditioner for Saddle Point Problems, Li-Tao Zhang,25
Closed-Range Generalized Composition Operators Between Bloch-Type Spaces, Cui Wang, and Ze-Hua Zhou,
Approximate Ternary Jordan Bi-Derivations on Banach Lie Triple Systems, Madjid Eshaghi Gordji, Vahid Keshavarz, Choonkil Park, and Jung Rye Lee,
Some Generalized Difference Sequence Spaces of Ideal Convergence and Orlicz Functions, Kuldip Raj, Azimhan Abzhapbarov, and Ashirbayev Khassymkhan,
A General Stability Theorem for a Class of Functional Equations Including Quadratic-Additive Functional Equations, Yang-Hi Lee and Soon-Mo Jung,
A Dynamic Programming Approach to Subsistence Consumption Constraints on Optimal Consumption and Portfolio, Ho-Seok Lee and Yong Hyun Shin,
The Stability of Cubic Functional Equation with Involution in Non-Archimedean Spaces, Chang II Kim and Chang Hyeob Shin,
Value Sharing Results for Meromorphic Functions with Their q-Shifts, Xiaoguang Qi, Jia Dou, and Lianzhong Yang,
Random Normed Space and Mixed Type AQ-Functional Equation, Ick-Soon Chang, and Yang-Hi Lee,
Blow-up of Solutions for a Vibrating Riser Equation with Dissipative Term, Junping Zhao,128

Existence, Uniqueness and Asymptotic Behavior of Solutions for a Fourth-Order Degenerate Pseudo-Parabolic Equation with $p(x)$ -Growth Conditions, Junping Zhao,
Generalizations on Some Meromorphic Function Spaces in the Unit Disc, A. El-Sayed Ahmed and M. Al Bogami,
Maximum Norm Superconvergence of the Trilinear Block Finite Element, Jinghong Liu, and Yinsuo Jia,
Hyers-Ulam Stability of an Additive Functional Inequality, Ming Fang and Donghe Pei,170
Characterization of a Class of Differential Equations, Mohammad Fuad Mohammad Naser Omar M. Bdair, and Fayçal Ikhouane,

## TABLE OF CONTENTS, JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, VOL. 22, NO. 2, 2017

Fuzzy Analytical Hierarchy Process Based On Canonical Representation on Fuzzy Numbers, Yong Deng,
A Quadrature Rule for the Finite Hilbert Transform via Simpson Type Inequalities and Applications, Shunfeng Wang, Na Lu, and Xingyue Gao,
A Quadrature Formula in Approximating the Finite Hilbert Transform via Perturbed Trapezoid Type Inequalities, Shunfeng Wang, Xingyue Gao, and Na Lu,
Pointwise Superconvergence of the Displacement of the Six-Dimensional Finite Element, Yinsuo Jia, and Jinghong Liu,247
Estimates for Discrete Derivative Green's Function for Elliptic Equations in Dimensions Seven and Up, Jinghong Liu, and Yinsuo Jia,
Existence of Solutions to a Coupled System of Higher-order Nonlinear Fractional Differential Equations with Anti-periodic Boundary Conditions, Huina Zhang, and Wenjie Gao,262
Iteration Process for Pointwise Lipschitzian Type Mappings in Hyperbolic 2-uniformly Convex Metric Spaces, D. R. Sahu, Samir Dashputre, and Shin Min Kang,271
Regularity of the American Option Value Function in Jump-Diffusion Model, Sultan Hussain, and Nasir Rehman,286

On a Summation Boundary Value Problem for a Second-Order Difference Equations with Resonance, Saowaluk Chasreechai and Thanin Sitthiwirattham,
Fuzzy Quadratic Mean Operators and Their Use In Group Decision Making, Jin Han Park, Seung Mi Yu, and Young Chel Kwun,
Sensitivity Analysis for General Nonlinear Nonconvex Set-Valued Variational Inequalities in Banach Spaces, Jong Kyu Kim,
Common Fixed Point Theorems for Non-compatible Self-mappings in b-Fuzzy Metric Spaces, Jong Kyu Kim, Shaban Sedghi, Nabi Shobe, and Hassan Sadati,
On Hesitant Fuzzy Filters in BE-Algebras, Young Bae Jun, and Sun Shin Ahn,346
A Fixed Point Approach to the Stability of Nonic Functional Equation In Non-Archimedean Spaces, Tian-Zhou Xu, Yali Ding, and John Michael Rassias,
Global Attractivity and Periodicity Behavior of a Recursive Sequence, E. M. Elsayed, and Abdul Khaliq,
TABLE OF CONTENTS, JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, VOL. 22, NO. 3, 2017
Periodic Orbits of Singular Radially Symmetric Systems, Shengjun Li, Wulan Li, and Yiping Fu,
Approximate Ternary Jordan Ring Homomorphisms in Ternary Banach Algebras, M. Eshaghi Gordji, Vahid Keshavarz, Jung Rye Lee, Dong Yun Shin, and Choonkil Park,

Quadratic $\rho$ -Functional Inequalities in Fuzzy Normed Spaces, Ji-Hye Kim, Choonkil Park,462
The Quadrature Rules of the Fuzzy Henstock-Stieltjes Integral on a Infinite Interval, Ling Wang,
Cubic and Quartic <i>ρ</i> -Functional Inequalities in Fuzzy Normed Spaces, Jooho Zhiang, Jeonghun Chu, George A. Anastassiou, and Choonkil Park,
A Right Parallelism Relation for Mappings to Posets, Hee Sik Kim, J. Neggers, and Keum Sook So,
Existence Results for Nonlinear Generalized Three-Point Boundary Value Problems for Fractional Differential Equations and Inclusions, Mohamed Abdalla Darwish, and Sotiris K. Ntouyas,
Quadratic ρ-Functional Inequalities in Fuzzy Banach Spaces, Choonkil Park, and Sun Young Jang,
Remarks On Common Fixed Point Results For Cyclic Contractions In Ordered b-Metric Spaces, Huaping Huang, Stojan Radenovic, and Tatjana Aleksic Lampert,
A Fixed Point Method to the Stability of a Jensen Functional Equation in Intuitionistic Fuzzy 2-Banach Spaces, Choonkil Park, Ehsan Movahednia, George A. Anastassiou, Sungsik Yun,546
Characterization of Modular Spaces, Manuel De la Sen, Donal O'Regan, and Reza Saadati,558
Ulam-Hyers Stability of 3-Jordan Homomorphisms in C*-Ternary Algebras, Madjid Eshaghi Gordji, Vahid Keshavarz, Choonkil Park, and Sun Young Jang,
TABLE OF CONTENTS, JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, VOL. 22, NO. 4, 2017
Some New Results on Products of the Apostol-Genocchi Polynomials, Yuan He,591
Functional Inequalities in Fuzzy Normed Spaces, Choonkil Park, George A. Anastassiou, Reza Saadati, and Sungsik Yun,
A Generalization of Simpson Type Inequality via Differentiable Functions Using Extended $(s,m)_{\phi}$ -preinvex functions, Yujiao Li, and Tingsong Du,

Isometric Equivalence of Linear Operators on Some Spaces of Analytic Functions, Li-Gang Geng,
S-Fuzzy Subalgebras and Their S-Products in BE-Algebras, Sun Shin Ahn, Keum Sook So, 639
Fixed Point Results for Generalized g-Quasi-Contractions of Perov-type in Cone Metric Spaces Over Banach Algebras Without the Assumption of Normality, Shaoyuan Xu, Branislav Z. Popovic, Stojan Radenovic,
On Some Inequalities of the Bateman's G-Function, Mansour Mahmoud, Hanan Almuashi,672
3-Variable Additive $\rho$ -Functional Inequalities in Fuzzy Normed Spaces, Joonhyuk Jung, Junehyeok Lee, George A. Anastassiou, and Choonkil Park,684
An Approach to Separability of Integrable Hamiltonian System, Hai Zhang,699
Cross-Entropy for Generalized Hesitant Fuzzy Sets and Their Use in Multi-Criteria Decision Making, Jin Han Park, Hee Eun Kwark, and Young Chel Kwun,
On Harmonic Quasiconformal Mappings with Finite Area, Hong-Ping Li, and Jian-Feng Zhu,726
Weak Estimates of the Multidimensional Finite Element and Their Applications, Yinsuo Jia, and Jinghong Liu,
New Integral Inequalities of Hermite-Hadamard Type for Operator m-Convex and $(\alpha, m)$ -Convex Functions, Shuhong Wang,
Non-periodic Multivariate Stochastic Fourier Sine Approximation and Uncertainty Analysis, Zhihua Zhang, and Palle E. T. Jorgensen,
TABLE OF CONTENTS, JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, VOL. 22, NO. 5, 2017
Higher-Order Degenerate Bernoulli Polynomials, Dae San Kim, and Taekyun Kim,789
Korobov Polynomials of the Seventh Kind and of the Eighth Kind, Dae San Kim, Taekyun Kim, Toufik Mansour, and Jong-Jin Seo,
Some Identities on the Higher-Order Twisted q-Euler Numbers and Polynomials, C. S. Ryoo,825

Umbral Calculus Associated With New Degenerate Bernoulli Polynomials, Dae San Kim,
Taekyun Kim, and Jong-Jin Seo,
Regularization Smoothing Approximation of Fuzzy Parametric Variational Inequality Constrained Stochastic Optimization, Heng-you Lan,
The Split Common Fixed Point Problem for Demicontractive Mappings in Banach Spaces, Li Yang, Fuhai Zhao, and Jong Kyu Kim,
Iterated Binomial Transform of the k-Lucas Sequence, Nazmiye Yilmaz and Necati Taskara,864
Nielsen Fixed Point Theory for Digital Images, Ozgur Ege, and Ismet Karaca,874
A Fixed Point Theorem and Stability of Additive-Cubic Functional Equations in Modular Spaces, Chang Il Kim, Giljun Han, and Seong-A Shim,
Results on Value-Shared of Admissible Function and Non-Admissible Function in the Unit Disc, Hong-Yan Xu,
Compositions Involving Schur Harmonically Convex Functions, Huan-Nan Shi, and Jing Zhang,
A Note on Degenerate Generalized q-Genocchi Polynomials, Jongkyum Kwon, Jin-Woo Park, and Sang Jo Yun,
Cubic Soft Ideals in BCK/BCI-Algebras, Young Bae Jun, G. Muhiuddin, Mehmet Ali Ozturk, and Eun Hwan Roh,
Hyers-Ulam Stability of the Delayed Homogeneous Matrix Difference Equation with Constructive Method, Soon-Mo Jung, and Young Woo Nam,941
Mathematical Analysis of (n + 3)-Dimensional Virus Dynamics Model, A. M. Elaiw, and N. H. AlShamrani,
On the Dynamics of a Certain Four-Order Fractional Difference Equations, Chang-you Wang, Xiao-jing Fang, and Rui Li,

# TABLE OF CONTENTS, JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, VOL. 22, NO. 6, 2017

A New Result on the Almost Increasing Sequences, H. S. Ozarslan and A. Karakas,989
Certain Chebyshev Type Inequalities Involving the Generalized Fractional Integral Operator Zhen Liu, Wengui Yang, and Praveen Agarwal,
Estimates for the Green's Function of 3D Elliptic Equations, Jinghong Liu and Yinsuo Jia,1015
The Structure of the Zeros Fixed Point for Genocchi Polynomials, J. Y. Kang, C. S. Ryoo, 1023
Additive $\rho$ -Functional Equations, Choonkil Park and Sun Young Jang,1035
Hyperstability of a Generalized Cauchy Functional Equation, Abbas Najati, Daryoush Molaee and Choonkil Park,
Stability Analysis and Optimal Control of a Cholera Model with Time Delay, Shu Liao and Fang,
Effect of Antibodies and Latently Infected Cells on HIV Dynamics with Differential Drug Efficacy in Cocirculating Target Cells, A. M. Shehata, A. M. Elaiw, and E. Kh. Elnahary,1074
A New Implicit Midpoint Iterative Scheme Involving Asymptotically Nonexpansive Mappings in Abstract Spaces, Shin Min Kang, Arif Rafiq, Faisal Ali, and Young Che Kwun,
Hesitant Fuzzy Filters in Lattice Implication Algebras, G. Muhiuddin, Eun Hwan Roh, Sun Shir Ahn, and Young Bae Jun,
3D Green's Function and Its Finite Element Error Estimates, Jinghong Liu and Yinsuo Jia,1114
Hermite-Hadamard Type Inequalities for s-Convex Functions via Riemann-Liouville Fractional Integrals, Shu-Hong Wang and Feng Qi,
Monotone Hybrid Projection Algorithm for Solving Fixed Point and Equilibrium Problems in a Banach Space, Xiaoying Gong and Sun Young Cho,
Inner-Outer Factorization on Besov-Type Spaces, Ruishen Qian and Songxiao Li,1150
Generalized Rational Contractions Endowed With a Graph and an Application to a System of Integral Equations, Huseyin Isik, Nawab Hussain, and Marwan A. Kutbi,

### TABLE OF CONTENTS, JOURNAL OF COMPUTATIONAL ANALYSIS AND APPLICATIONS, VOL. 22, NO. 7, 2017

On Quadratic $\rho$ -Functional Inequalities in Fuzzy Normed Spaces, Choonkil Park, Sun Young Jang, and Sungsik Yun,
On a Double Integral Equation Including a Set of Two Variables Polynomials Suggested by Laguerre Polynomials, M. Ali Özarslan and Cemaliye Kürt,
Generalized Inequalities of the type of Hermite-Hadamard-Fejer with Quasi-Convex Functions by way of k-Fractional Derivatives, A. Ali, G. Gulshan, R. Hussain, A. Latif, and M. Muddassar,
Nonlinear Differential Polynomials of Meromorphic Functions with Regard to Multiplicity Sharing a Small Function, Jianren Long,
Impulsive Hybrid Fractional Quantum Difference Equations, Bashir Ahmad, Sotiris K. Ntouyas, Jessada Tariboon, Ahmed Alsaedi, and Wafa Shammakh,
A Fixed Point Alternative to the Stability of a Quadratic $\alpha$ -Functional Equation in Fuzzy Banach Spaces, Choonkil Park, Jung Rye Lee, and Dong Yun Shin,
Four-Point Impulsive Multi-Orders Fractional Boundary Value Problems, N. I. Mahmudov and H. Mahmoud,
Convergence of Modification of the Kantorovich-Type q-Bernstein-Schurer Operators, Qing-Bo Cai and Guorong Zhou,
Barnes-Type Degenerate Bernoulli and Euler Mixed-Type Polynomials, Taekyun Kim, Dae San Kim, Hyuckin Kwon, and Toufik Mansour,
Ground State Solutions for Second Order Nonlinear p-Laplacian Difference Equations with Periodic Coefficients, Ali Mai and Guowei Sun,
On a Solutions of Fourth Order Rational Systems of Difference Equations, E. M. Elsayed, Abdullah Alotaibi, and Hajar A. Almaylabi,
On the Dynamics of Higher Order Difference Equations $x_{n+1} = ax_n + \frac{\alpha x_n x_{n-l}}{\beta x_n + \gamma x_{n-k}}$ , M. M. El-Dessoky,
Applications of Soft Sets in BF-Algebras, Jeong Soon Han and Sun Shin Ahn

Symmetric Solutions for Hybrid Fractional Differential Equations, Jessada Tariboo	ŕ
Ntouyas, and Suthep Suantai,	1332
On the k-th Degeneration of the Genocchi Polynomials, Lee-Chae Jang, C.S. Ryoc	, Jeong Gor
Lee, and Hyuck In Kwon,	1343
Regularization Solutions of Ill-Posed Helmholtz-Type Equations with Fuzzy Mixe	ed Boundary
Value, Hong Yang and Zeng-Tai Gong,	1350
Behavior of the Difference Equations $x_{n+1} = x_n x_{n-1} - 1$ , Keying Liu, Peng Li, I	Fei Han, and
Weizhou Zhong,	1361