

COMMUNICATIONS

ON

APPLIED NONLINEAR ANALYSIS

Volume 1	Numbers 1- 4	1994
Volume 2	Numbers 1- 4	1995
Volume 3	Numbers 1- 4	1996
Volume 4	Numbers 1- 4	1997
Volume 5	Numbers 1- 4	1998
Volume 6	Numbers 1- 4	1999
Volume 7	Numbers 1- 4	2000
Volume 8	Numbers 1- 4	2001
Volume 9	Numbers 1- 4	2002
Volume 10	Numbers 1- 4	2003

Volume 11

Number 1

January 2004

- Variational and topological methods for Neumann problems with p-Laplacian, Jenica C. Cringanu (01-38)
- An nth order singular three-point boundary value problem, **Johnny Henderson** and P. Singh (39-50)
- Global Hölder regularity for nonhomogeneous elliptic systems with nonlinearity greater than two and with controlled growth, **Giovanna Idone** (51-63)
- Nontrivial solutions to a nonlinear boundary value problem on a time scale, **Johnny Henderson** (65-71)

- Eigenvalue comparisons for m-pont boundary value problems, **Basant Karna** (73-83)
Second order multivalued boundary value problems, **A. Boucherif**
and **B. Chanane** (85-91)
- H-monotone operators and systems of variational inclusions, **Y. P. Fang** and **N. J. Huang**
(93-101)
Concerning the convergence and application of Newton's method under hypotheses on
the first and second Frchet derivative, **Ioannis K. Argyros** (103-119)

Volume 11 Number 2 April 2004

Identifying a heat source in automatic control problems

□ **CECILIA CAVATERRA** and **FABRIZIO COLOMBO** (01-23)

Strong convergence theorems for a common fixed point of a finite family of nonexpansive mappings

□ **C. E. CHIDUME**, **H. ZEGEYE** and **E. PREMPEH** (25-32)

Stabilization of the phase-field system via internal feedback control

□ **SHUGANG LI** (33-43)

Two-step algorithms and their applications to variational problems

□ **B. E. RHOADES** and **RAM U. VERMA** (45-55)

Operator approximating sequences and fixed points

□ **RAVI P. AGARWAL**, **DONAL O'REGAN** and **RAM U. VERMA** (57- 67)

Existence and multiplicity results for quasilinear boundary value problems with blow-up boundary conditions

□ **MOHAMMED DERHAB** (69-105)

Volume 11 Number 3 July 2004

Nonlinear internal superposition operator in spaces of summable functions

> **MICHAEL DRAKHLIN** and **ELENA LITSYN** 01

Periodic boundary value problems for first order functional impulsive differential inclusions

> **B. C. DHAGE**, **J. HENDERSON** and **JUAN J. NIETO** 13

Coincidence point theorems for set-valued mappings and applications

> **JONG SOO JUNG** 27

On two improved Durand-Kerner methods without derivatives

> **Z. HUANG** and **IOANNIS K. ARGYROS** 43

Variation of constant formulas for parabolic boundary problems

> **MENG SU** 49

Some results on a class of fractional functional differential equations

> **CHENG YU** and **GUOZHU GAO** 67

On the convergence of Broyden's method

> **IOANNIS K. ARGYROS** 77

On the recursive sequence $x_{n+1} = A + f(x_n, \dots, x_n - k+1)/x_{n-k}$

> **G. L. KARAKOSTAS** and **STEVO STEVIĆ** 87

Volume 11

Number 4

OCTOBER 2004

Blow-up and global existence for the Landau-Lifshitz equation > LIJING SUN	01
Bounded nonoscillatory solutions for second-order neutral differential equations > JIQIN DENG	19
Multiple solutions to dynamic equations on time scales > CHRISTOPHER C. TISDELL, PAVEL DRÁBEK and JOHNNY HENDERSON	25
Existence of extremal random solutions of nonlinear random integral equations > B. C. DHAGE, R. N. INGLE and S. K. NTOUYAS	43
Second order right focal boundary value problems on a time scale > G. HARRIS, J. HENDERSON, A. LANZ and W. K. C. YIN	57
The filtration with third-boundary value in partially saturated layered porous media > ZHIDA HUANG	63
Deformation method for multi-block mesh > JIAXING XUE and GUOJUN LIAO	73
Nonlinear perturbed two-point random boundary value problems > B. C. DHAGE, J. HENDERSON, R. N. INGLE and S. M. KANG	91

VOLUME 12

NUMBER 1

JANUARY 2005

A Poincaré inequality on R^n and its application to potential fluid flows in space > GUOZHEN LU AND BIAO OU	01
Existence and uniqueness of classical solutions for the one phase mathematical problem arising in the charge and discharge process of hydride electrode > Y. YANG AND Z. GUAN	25
Strong convergence theorems for asymptotically quasi-nonexpansive mappings > C. E. CHIDUME AND H. ZEGEYE	43
On the convergence of Newton's method under twice Fréchet differentiability only at a point > IOANNIS K. ARGYROS	51
Approximating fixed points and common fixed points of quasi-nonexpansive mappings > Z. LIU, C. FENG, S. M. KANG AND J. S. UME	59
Iterative approximation of fixed points for a class of generalized nonexpansive mappings > J. HAO, Z. AN, S. M. KANG AND H. K. KIM	69
On generalized nonlinear variational inequalities > Z. LIU, H. GAO, S. M. KANG AND G. I. KIM	77
An application of the dual variational principle to a Hamiltonian system with discontinuous nonlinearities > C. O. ALVES, D. C. DE MORAIS FILHO AND M. A. S. SOUTO	89

Existence of solutions of nonlinear stochastic differential inclusions in a Hilbert space > P. BALASUBRAMANIAM, S. K. NTOUYAS AND D. VINAYAGAM	01
On solvability and convergence of a class of generalized nonlinear variational inequalities > Z. LIU, J. SUN, S. M. KANG AND S. H. SHIM	17
Some control conditions on iterative methods > Y. J. CHO, S. M. KANG AND H. ZHOU	27
On the dynamics of $x_{n+1} = (\beta x_n + \gamma x_n \square 1) / (\beta x_n + D x_n \square 2)$ > DeVAULT AND S. W. SCHULTZ	35
Closed form solutions of some rational recursive sequences of second order > M. BEN H. RHOUMA	41
A general class of nonlinear mixed quasivariational inequalities with nonmonotone set-valued mappings in Banach spaces > H. Y. LAN	59
Properties of the generating function method > X. XU AND Y. PAN	77
Extremal solutions for impulsive dynamic equations on time scales > A. BELARBI, M. BENCHOHRA AND A. OUAHAB	85
On the approximation of strongly regular solutions for generalized equations > IOANNIS K. ARGYROS	97

Poincaré return map near a planar center > VINCENT NAUDOT AND KOEN NEIRYNCK (1-27)	
Nontrivial solutions of a $(k, n \square k)$ boundary value problem > DING MA (29-36)	
Second order boundary value problems of discontinuous differential inclusions > B. C. DHAGE AND RAM VERMA (37-45)	
On the strong and weak convergence for implicit iteration processes > S. S. CHANG, H. W. JOSEPH LEE, L. YANG AND J. A. LIU (47-60)	
A note on multiple solutions for impulsive functional differential equations > M. BENCHOHRA, A. OUAHAB, J. HENDERSON AND S. K. NTOUYAS (61-70)	
Positive solutions to a third-order right focal boundary value problem > MARIETTE MAROUN (71-82)	
Eigenvalue comparisons for three-point boundary value problems > BASANT KARNA (83-91)	
A third order singular three-point boundary value problem > PARMJEET SINGH COBB (93-105)	

Eigenvalue intervals for even-order-Sturm-Liouville dynamic equations,

> D. R. ANDERSON (1-13)

On the rational recursive sequence,

> E. M. E. ZAYED and M. A. EL-MONEAM (15-28)

Best approximation in $L_p(\Omega, X)$,

> X. YE, X. XU and X. LUO (29-36)

Eigenvalue comparisons for an impulsive boundary value problem with Sturm-Liouville boundary conditions,

> B. A. LAWRENCE and N. WINTZ (37-45)

Existence results for nonlinear functional random differential equations in Banach algebras,

> B. C. DHAGE (47-67)

Application of generalized averages to uniqueness of solutions, and to a non-local problem,

> PHILIP KORMAN (69-78)

On the existence for the convergence of Mann and Ishikawa iteration with mixed errors for Lipschitz strongly pseudo-contractive mappings,

> S. S. CHANG, J. K. KIM, and Y. J. CHO (79-88)

Multivalued quasivariational inclusions in Banach spaces,

> S. S. CHANG, H. K. PARK, J. K. IM and Y. J. CHO (89-106)

Time almost-periodic solutions for a class of nonlinear hyperbolic problems,

> Rodica Luca (1-14)

An extension of the fixed point theorem of cone expansion and compression of functional type,

> R. I. Avery, D. R. Anderson, and R. J. Krueger (15-26)

On weak convergence by products of mappings in Hilbert spaces,

> K. Nakajo, K. Shimoji, and W. Takahashi (27-50)

On a class of infinite horizon variational problems,

> A. J. Zaslavski (51-57)

Existence results for dynamic equations on times scales with integral boundary conditions

> A. Belarbi, M. Benchohra, S. K. Ntouyas, and A. Ouahab (59-70)

A hybrid fixed point theorem in Banach algebras with applications

> B. C. Dhage, and R. N. Kalia (71-84)

Global convergence of the coordinate relaxation method of nongradient mappings,

> X. Yin (85-96)

Critical point theory on unbounded regions [Research Announcement],

> Martin Schechter (97-105)

- Estimates and superpositions of general nonlinear sampling operators and applications
> Carlo Bardaro, and I. Mantellini (1- 36)
- On the dynamics of $x_{n+1} = p_n + x_n \square 1 / x_n \square 2$, $n= 0, 1, \dots$ with a periodic coefficient,
> S. Kalabusic, and M. Nurkanovic (37-57)
- Global existence results for impulsive functional dynamic inclusions on time scales in Frechet spaces,
> John R. Graef, and A. Ouahab (59-81)
- Controllability for abstract neutral stochastic integrodifferential inclusions in Hilbert space,
> P. Balasubramaniam (83-106)

- Existence of attracting periodic orbits for King and Jarratt iterative methods,
> SERGIO AMAT, SONIA BUSQUIER, and SERGIO PLAZA 01
- Existence theory for perturbed functional differential inclusions,
> B. C. DHAGE, E. GATSORY, and S. K. NTOUYAS 15
- Singular discrete third order boundary value problems,
> CURTIS J. KUNKEL 27
- Multiplicity of positive solutions for a boundary value problem with the p -Laplacian operator,
> . KOSMATOV, and L. McMILLAN 39
- Impulsive hyperbolic differential inclusions with infinite delay,
> JOHNNY HENDERSON, and A. OUAHAB 49
- Uniqueness of solutions for elliptic problems with non-linear boundary conditions,
> C. MORALES-RODRIGO, and ANTONIO SUÁREZ 69
- Nonoccurrence of the Lavrentiev phenomenon for nonconvex smooth variational problems in Banach spaces,
> ALEXANDER J. ZASLAVSKI 79
- Controllability of the second order differential inclusions in Banach spaces,
> L. WEI, J. ZHU, and Y. J. CHO 93

Stability and Hopf bifurcation in the Watt Governor system, > JORGE SOTOMAYOR, LUIS F. MELLO and DENIS de CARVALHO BRAGA	01
Uniqueness implies uniqueness and existence for nonlocal boundary value problems for third order ordinary differential equations, >MICHAEL GRAY	19
Coupled random fixed points of random multivalued operator on ordered Banach spaces, > M. ABBAS and ISMAT BEG	31
Computation of traveling waves via an algorithm for connecting orbits, □ JORGE REBAZA	43
Impulsive hyperbolic differential inclusions with infinite delay and variable moments, > JOHNNY HENDERSON and A. OUAHAB	61
Existence, multiplicity and concentration of positive solutions for a class of quasilinear problems with critical growth, > □ G. M. FIGUEIREDO	79
On abstract nonlinear mixed Volterra-Fredholm integro-differential equations, > M. B. DHAKNE and S. D. KENDRE	101

VOLUME 14

NUMBER 1

JANUARY 2007

Higher order boundary value problems with multiple solutions, > JOHN V. BAXLEY, and MARY E. CUNNINGHAM (1-14)	
Multiple positive solutions for singular boundary value problems, □ MAYA CHHETRI and STEPHEN ROBINSON (15-29)	
Uniqueness and existence for unbounded boundary value problems, > J. EHME, and A. LANZ (31-38)	
Existence of solutions for nonlinear boundary value problems, > JOHN R. GRAEF, and L. KONG (39-60)	
Positive solutions for a nonlinear fourth order boundary value problem, > JOHN R. GRAEF, and B. YANG (61-73)	
Existence and uniqueness for boundary controllability of Sobolev - type for nonlinear differential and integrodifferential equations in Fréchet spaces, > JOHNNY HENDERSON, and A. OUAHAB (75-87)	
Existence of solutions of multipoint boundary value problems, > GARY D. JONES (89-92)	
Multi-point boundary value problems of second-order differential equations (II), > L. KONG, and Q. KONG (93-111)	
Solutions of quasilinear semipositone boundary - value problems, > MATTHEW RUDD (113-119)	
On the nth mode numerical solutions of a second order boundary value problem on semi-infinite domain, > Q. SHENG, and J. W. HAUS (121-133)	

Controllability and extremality for differential-difference inclusions,

> A. CERNEA , and CARMINA GEORGESCU (1-12)

Existence results for a class of BVPs on the positive half-line,

> S. DJEBALI, and K. MEMBARKI (13-31)

Riccati difference equations with real period-2 coefficients,

> E. A. GROVE, Y. KOSTROV, G. LADAS, and S. W. SCHULTZ (33-56)

Positive solutions of a left focal second order boundary value problems,

> JOHN E. EHRKE (57-65)

Positive solutions for a class of nonlocal elliptic systems,

> F. J. S. A. CORREA, and F. P. M. LOPES (67-77)

On the exact number bifurcation branches in a square and in a cube,

> DIMITRI MUGNAI, and ANGELA PISTOIA (79-100)

Strong convergence theorems for nonlinear operators in Banach spaces,

> X. QIN, Y. SU, C. WU, and K. LIU (101-114)

Global solutions of parabolic equations with nonlinear boundary conditions,

> MENG SU

01

A two-step Steffensen-type method for nonsmooth variational inclusions,

> SAID HILOUT

27

Strong convergence theorems for nonlinear operators in Banach spaces,

> X. QIN, Y. SU, C. WU, and K. LIU

35

Modified gradient-projection methods for critical points of a constrained nonconvex minimization problem,	51
> PAUL-EMILE MAINGÉ, and A. MOUDAFI	
The existence and multiplicity of constant sign solutions to a three-point boundary value problem,	63
> JOHNNY HENDERSON and N. KOSMATOV	
Characterization of restricted p-centers,	79
> X. F. LUO, and X. B. XU	
Parametric generalized Newton-Secant methods with cubic convergence,	91
> ANGE BAO, and X. B. XU	
Uniqueness implies existence for nonlinear conjugate-like boundary value problems,	
□ JEFFREY EHME, and A. LANZ	
99	

VOLUME 14

NUMBER 4

October 2007

Global convergence in difference equations,	01
> E. CAMOUZIS and G. LADAS	
An existence result for nonlinear integrodifferential inclusions,	17
> AURELIAN CERNEA	
Constant signed solutions of a nonlocal boundary value problem on time scales,	25
> ERIC R. KAUFMANN and N. KOSMATOV	
An asymptotic stable result of solutions for an integral equation of mixed type on time scales,	35
> M. BENCHOHRA, N. HAMIDI, and S. K. NTOUYAS	
Existence and algorithm of solutions for a class of generalized nonlinear variational-like inequalities in reflexive Banach spaces,	47
> Z. LIU, H. GAO, R. U. VERMA, and S. M. KANG	
Extended versions of quasilinearization for forced duffing equation,	67
> B. AHMAD, and B. ALGHAMDI	

On the number of singular points of the radial projection of polynomial gradient vector fields of R^3 on the sphere S^2 , > J. LLIBRE, and ADAM MAHDI	77
Sign-Changing and extremal constant-sign solutions of nonlinear elliptic problems with supercritical nonlinearities > S. CARL, and D. MOTREANU	85
Liapunov methods for higher order five point nonlocal boundary value problems by solution matching, > JOHNNY HENDERSON	101

VOLUME 15 NUMBER 1 JANUARY 2008

Nonlocal maximum principles and applications, > RICARDO ENGUICA & LUÍS SANCHEZ	01
The existence of periodic and subharmonic solutions to discrete Hamiltonian systems, > H. TANG & Z. ZHOU	17
Simple nonautonomous differential equations with many limit cycles, > B. COLL, A. GASULL, and R. PROHENS	29
A new line search method with trust region for unconstrained optimization, > G. YUAN & X. LU	35
Uniqueness implies existence for general three-point boundary value problems on time scales, > K. R. PRASAD & P. MURALI	51
Generic continuity of a lower semicontinuous mapping, > ALEXANDER J. ZASLAVSKI	61
Global dynamics of a rational system of difference equations in the plane, > DZ. BURGIC, M.R.S. KULENOVIC, and M. NURKANOVIC	71
On a two-step Newton method for solving equations under improved Ptak-type estimates, > I. K. ARGYROS	85

VOLUME 15 NUMBER 2 APRIL 2008

CONTENTS

The Tricomi equation: A case study, > J.W. NEUBERGER	01
Non-simple waves via conservation laws for two-dimensional shock waves, > GHOLAM-ALI ZAKERI	09
Convergence theorems of Ishikawa iterates with modified errors for multivalued nonexpansive/quasi-contractive maps in Hilbert spaces, > G.B.R. BABU, M.V.R. KAMESWARI and M.L. SANDHYA	27
Fixed point theory for α -condensing set valued maps in hyperconvex metric spaces, > A. AMINI-HARANDI, A.P. FARAJZADEH, D. O'REGAN and R.P. AGARWAL	39
On the rational recursive sequence, > E.M.E. ZAYED and M.A. EL-MONEAM	47
Positive solutions for systems of nonlinear generalized three-point boundary value problems with deviating arguments, > J. HENDERSON, S.K. NTOUYAS and I.K. PURNARAS	59
A nonlinear system of difference equations linking mosquitoes, habitats, and community interventions, > T. AWERBUCH-FRIEDLANDER, R. LEVINS, E. CAMOUZIS, E. A. GROVE and G. LADAS	77
Asymptotic stability of nonlinear functional integral equations via measures of noncompactness, > B.C. DHAGE	89
A short note on the Y2K problem, > HRISTO VOULOV	103

VOLUME 15 NUMBER 3 JULY 2008

CONTENTS

> Asymptotic uniqueness of solutions for an elliptic problem with nearly critical growth on symmetric domains, T. SATO & F. TAKAHASHI	01
> Asymptotic behavior of the nonautonomous difference equation, A. AGHAJANI	19
> The strong nonlinear limit-point/limit-circle properties for a class of even order equations, M. BARTUSEK & JOHN R. GRAEF	29
> Existence results for a fractional functional differential equation of mixed type, M.A. DARWISH & S.K. NTOUYAS	47
> Homotopy perturbation and Adomain decomposition methods for solving nonlinear Boussinesq equations, E.M.E. ZAYED, T.A. NOFAL & K.A. GEPREEL	57
> Existence results for degenerate quasilinear elliptic equations, ALBO CARLOS CAVALHEIRO	71
> Viscosity approximation algorithms of common solutions for fixed points of infinite nonexpansive mappings and quasi-variational inclusion problems, L. ZHAO, S.S. CHANG & M. LIU	83

VOLUME 15 NUMBER 4 OCTOBER 2008

CONTENTS

> From iterated function systems to iterated multifunction systems, HERB KUNZE, DAVIDE LA TORRE, and EDWARD R. VRSCAY	01
> Exact number of positive solutions for a class of quasilinear boundary value problems, M. DERHAB, and M. MEGNAFI	15
> Positive solutions for systems of a generalized second order three-point boundary value problem on time scales, M. BENCHOHRA, J. HENDERSON, S. K. NTOUYAS, and I. K. PURNARAS	39
> On asymptotic behavior of a nonlinear functional integral equation, B. C. DHAGE, A. V. DESHMUKH, and JOHN R. GRAEF	55
> Using projections in a direct minimization scheme for a wide class of energy functionals, PARIMAH KAZEMI	69

VOLUME 16 NUMBER 1 JANUARY 2009

CONTENTS

- > Fourth-order boundary value problems with multi-point boundary conditions,
C. V. PAO, and Y. M. WANG 01
- > Solvability of a functional integral equation under Carathéodory conditions,
M. A. DARWISH, and J. HENDERSON 23
- > An iterative scheme for generalized equilibrium problems and fixed points problems
of strictly pseudocontractive mappings,
Y. YAO, Y. C. LIOU, and G. MARINO 37
- > On global existence of solutions of abstract nonlinear mixed integrodifferential
equation with nonlocal condition,
H. L. TIDKE, and M. B. DHAKNE 49
- > Successive approximations to solutions of dynamic equations on time scales,
CHRISTOPHER C. TISDELL, and ATIYA H. ZAIDI 61
- > On the global behavior of solutions to a planar system of difference equations,
S. BASU, and ORLANDO MERINO 89

VOLUME 16

NUMBER 2

APRIL 2009

CONTENTS

- > Boundary data smoothness for solutions of nonlocal boundary value problems for
second order difference equations,
B. HOPKINS, E. KIM, J. LYONS, and K. SPEER 01
 - > Periodic solutions for nonautonomous second order differential inclusions
systems with p -Laplacian,
DANIEL PASCA 13
 - > Convergence of a composite iterative method for nonexpansive nonself-mappings,
J. S. JUNG 25
 - > Dynamics of a recursive sequence of higher order,
E. M. ELSAYED 37
 - > On the global character of the system,
E. CAMOUZIS, E. DRYMONIS and G. LADAS 51
 - > Existence of minimal and maximal solutions for a fourth-order differential equation
with multipoint boundary conditions,
M. DERHAB and B. MESSIRDI 65
 - > Qualitative theory of divided difference first order systems,
RAVI P. AGARWAL and SANDRA PINELAS 83
-

CONTENTS

- > Global behavior of two competitive rational systems of difference equations in plane, A. BRETT, M.R.S. KULENOVIC, M. GARIC-DEMIROVIC and M. NURKANOVIC (1-18)
- > Upper and lower solutions method for a superlinear duffing equation, C. W. WANG, D. BLACKMORE and X. WANG (19-29)
- > From alternating minimization algorithms and systems of variational inequalities to equilibrium problems, A. MOUDAFI (31-35)
- > Integral stability in terms of two measures for impulsive differential equations with supremum, S. HRISTOVA 37-49)
- > A Γ -convergence result in nonlinear plate theory, C. POPOVICI (51-66)
- > Existence and approximation of solutions of nonlinear problems with nonlinear boundary conditions, R. A. KHAN (67-80)
- > On continuous solutions of nonlinear integral equations, M. B. DHAKNE and R. S. JAIN (81-90)
- > On the rational recursive sequence, E. M. E. ZAYED and M. A. EL-MONEAM (91-106)

CONTENTS

- > Optimal control on infinite dimensional Banach spaces of neutral systems driven by vector measures, N. U. AHMED (1-14)
- > Robust solutions of uncertain extended weighted Steiner problems with applications, H.M. ZHAO, X.Z. XU and N.J. HUANG (15-26)
- > Stepanov-like almost automorphic solutions for nonlocal Cauchy problems, P. FREMPONG-MIREKU and H. LEE (27-37)
- > A topological proof and extension of the Leggett-Williams fixed point theorem, R.I. AVERY, J. HENDERSON and D.R. ANDERSON (39-44)
- > The Perron integral of order two in Riesz spaces via Peano derivatives, A. BOCCUTO, A.R. SAMBUCINI and V.A. SKVORTSOV (45-59)
- > An eigenvalue inequality for the periodic p-Laplacian and an explicit bound, M.

BROWN and M. EASTHAM (61-71)

> On the convergence of Steffensen's method on Banach spaces under the gamma condition, I.K. ARGYROS and S. HILOUT (73-84)

> Variational inclusions for fractional differential inclusions, A. CERNEA (85-92)

> Existence of common fixed points in Menger spaces, I. BEG and M. ABBAS (93-100)

VOLUME 17 NUMBER 1 JANUARY 2010

CONTENTS

> Multiple positive solutions for nonlinear third order general three point boundary value problems on time scales, K. R. PRASAD and N. V. V. S. SURYANARAYANA (1-11)

> On quadratic perturbations of second order functional integro-differential equations, B. C. DHAGE, B. D. KARANDE and S. K. NTOUYAS (13-30)

> Pseudo-almost automorphic solutions to a class of semilinear fractional differential equations, C. CUEVAS, M. RABELO and H. SOTO (31-47)

> On using the $(G \square / G)$ -expansion method for solving nonlinear partial differential equations in mathematical physics, E. M. E. ZAYED and S. AL-JOUDI (49-64)

> A game-theoretic approach in single-server queues with maintenance: Time sensitive analysis, N. AL-MATAR and JEWGENI H. DSHALALOW (65-92)

> The use of core functions in semilinear problems, MARTIN SCHECHTER (93-102)

VOLUME 17 NUMBER 2 APRIL 2010

CONTENTS

> On a system of two exponential type difference equations, G. STEFANIDOU, G. PAPASCHINOPOULOS, and C. J. SCHINAS (1-13)

> New family of centers for polynomial vector fields of arbitrary degree, A. CIMA, J. LLIBRE and J. C. MEDRADO (15-24)

> Topological transversality method and fractional order differential equations, M. BENCHOHRA, N. HAMIDI and J. J. NIETO (25-34)

> Approximate solutions to nonlinear mixed type integrodifferential equation with nonlocal condition, H. L. TIDKE and M. B. DHAKNE (35-44)

> A new general approach to resolvent operators and proximal point algorithms, A. MOUDAFI (45-52)

- > Multiplicity results for positive solutions of a coupled system of singular boundary value problems, N. A. ASIF and R. A. KHAN (53-68)
- > On global behavior of ..., E. A. GROVE, Y. KOSTROV, M. A. RADIN and S. W. SCHULTZ (69-81)
- > The auxiliary equation method and its applications for solving nonlinear partial differential equations, E.M.E. ZAYED and S. AL-JOUDI (83-101)
- > A new iterative method for solving a system of generalized variational inequalities in Banach spaces, S.S. CHANG and J.A. LIU (103-113)

VOLUME 17 NUMBER 3 JULY 2010

- ▶ Good programs for a class of infinite horizon optimal control problems, ALEXANDER J. ZASLAVSKI (1-14)
- ▶ Existence result of entire solution for some anisotropic quasilinear equation with gradient terms, SAMI AOUAOUI (15-36)
- ▶ Existence and uniqueness results for impulsive hybrid stochastic delay systems, JUN LIU, X. LIU and W.C. XIE (37-54)
- ▶ Regularity criterion for the system modeling the flow of liquid crystal via the direction of velocity, Z. ZHANG (55-60)
- ▶ Locally maximal solutions of control systems arising in economic dynamics, ALEXANDER J. ZASLAVSKI (61-68)
- ▶ A nonlocal boundary value problem for a nonlinear fractional differential equation with two indices, B. AHMAD and PAUL ELOE (69-80)
- ▶ Boundary value problems with gaps in boundary conditions for differential equations by matching solutions, XUEYAN LIU (81-88)
- ▶ Optimality conditions for multiple objective fractional subset programming with invex and related non-convex functions, S..K. MISHRA, M. JAISWAL and PANKAJ (89-

VOLUME 17 NUMBER 4 OCTOBER 2010

CONTENTS

- ▶ Existence and nonexistence results for some quasilinear problem with nonstandard growth conditions, SAMI AOUAOUI (1-24)
- ▶ Existence of solutions of Dirichlet boundary value problems for higher order difference equations on an infinite interval, Y. LIU and JOHN R. GRAEF (25-41)
- ▶ Existence results for second order boundary value problem with four –point nonlocal integral boundary conditions, B. AHMAD and S. K. NTOUYAS (43-52)
- ▶ Existence of solutions for quasilinear elliptic systems with Holder continuous nonlinearities and integral boundary conditions, M. DERHAB (53-80)
- ▶ Pohozaev’s identity and non-existence of solutions for elliptic systems,

PHILIP KORMAN (81-88)

- ▶ On essential components of the solution set of a generalized Ky Fan inequality, N.T. VINH (89-100)
- ▶ An existence theorem of solutions for the dirichlet problem of some degenerate semilinear elliptic equations, A.C. CAVALHEIRO (101-111)

VOLUME 18

NUMBER 1

JANUARY 2011

CONTENTS

- > Patterns of boundedness of the rational system, E. CAMOUZIS, E. DRYMONIS and G. LADAS 01
- > Existence of multiple positive solutions for a general system of fractional differential equations, R.A. KHAN and M. REHMAN 25
- > A global uniqueness result for abstract integral equations of Volterra type in Banach spaces, M. BENCHOHRA and S. LITIMIEN 37
- > Strong convergence theorems for asymptotically relatively nonexpansive mappings with applications, S.S. CHANG, X.R. WANG, H.W. JOSEPH LEE and C.K. CHAN 45
- > On nondifferentiable minimax fractional programming involving generalized (C, α, ρ, d) -convexity, A. JAYSWAL and D. KUMAR 61
- > Study of quasilinear elliptic equation in R^n , M. BENRHOUMA 79
- > Set functional differential equations, U. ABBAS and V. LUPULESCU 97

VOLUME 18

NUMBER 2

APRIL 2011

CONTENTS

- > Existence of minimal and maximal solutions for a fourth order differential equation with nonlocal boundary conditions, M. DERHAB and B. MESSIRDI (1-19)
- > Oscillation criteria for third order nonlinear differential equations, JOHN R. GRAEF and M. REMILI (21-28)
- > A note on generalized vector variational-like inequalities, Y. J. CHO, M.F. KHAN and SALAHUDDIN (29-46)
- > Vector implicit mixed quasi complementarity problems, S.A. KHAN, Q.H. KHAN and F. SUHEL (47-55)
- > Convergence of inexact orbits of contractive mappings in metric spaces, SIMEON REICH and ALEXANDER J. ZASLAVSKI (57-63)
- > Global asymptotic stability for a class of general symmetric rational difference equations, C. ZHANG, N.J. HUANG and Y.Z. ZHOU (65 - 73)
- > Second-order optimality conditions for problems with locally Lipschitz data via tangential directions, ELENA CONSTANTIN (75-84)
- > Resolvent operators for a fractional integro-differential equation, J.P.C.D. SANTOS (85- 98)
- > On optimality and duality for non differentiable minimax fractional optimization

problems with generalized convexity, S.K. MISHRA and A.K. SINGH (99-106)

VOLUME 18

NUMBER 3

JULY 2011

CONTENTS

- Oscillation criteria for fourth-order nonlinear dynamic equations,
> RAVI AGARWAL, E. AKIN-BOHNER and S. SUN (1-16)
- Global existence and convergence theorems for hybrid differential equations,
> B.C. GHAGE (17-30)
- Multi-point boundary value problems for fractional differential equations,
> R.A. KHAN (31-40)
- Existence of positive solutions of a second order right focal boundary problem,
> D.R. ANDERSON, R.I. AVERY, J. HENDERSON and X. LIU (41-52)
- The homotopy analysis methods for solving the nonlinear evolution equations in mathematical physics,
> E.M.E. ZAYED and H.M. ABDEL RAHMAN (53-70)
- Remarks on fixed points of generalized upper hemicontinuous maps,
> SEHIE PARK (71-78)
- On mild solution of second order functional integrodifferential equation with nonlocal condition,
> K.D. KUCCHE and M.B. DHAKNE (79-88)
- Optimal intervals for uniqueness of solutions for nonlocal boundary value problems,
> PAUL W. ELOE and JOHNNY HENDERSON (89-97)
- Note on Fermat extreme value theorem,
> SANJO ZLOBEC (99-103)

VOLUME 18

NUMBER 4

OCTOBER 2011

CONTENTS

- > Guang He and N.J. Huang, Existence for modified operator equations with an application (1-6)
- > P. Kumar Das, On a class of T - η -hyperinvex function and generalized hyper differential dominated vector variational inequality problem (7-22)
- > I.K. Argyros and S. Hilout, A convergence analysis for directional Newton-like

- methods (23-38)
- > E.M.E. Zayed, Dynamics of the rational difference equation (39-56)
 - > A. Jayswal, I. Ahmad and D. Kumar, Nondifferentiable minimax fractional programming problem with nonsmooth generalized convex functions (57-75)
 - > V.V. Khuong and M.N. Phong, A note on global behavior of solutions and positive nonoscillatory solution of a difference equation (77-88)
 - > I.K. Argyros and H. Ren, A note on the iteratively regularized Gauss-Newton method under center-Lipschitz conditions (89-96)
-

VOLUME 19 NUMBER 1 JANUARY 2012

CONTENTS

- > Convergence in variation for a homothetic modulus of smoothness in multidimensional setting, LAURA ANGELONI (1—22)
- > Derived cones to reachable sets of fractional differential inclusions, AURELIAN CERNEA (23—31)
- > The existence of a solution to a fractional order initial value problem, BRIAN LEONARD and NICKOLAI KOSMATOV (33—42)
- > Algorithms with strong convergence for a system of general nonlinear variational inequalities in Banach spaces, J.H. ZHU, S.S. CHANG and M. LIU (43—57)
- > Remarks on simplicial spaces and L^* -spaces of Kulpa and Szymanski, SEHIE PARK (59—69)
- > New conditions for stability of switched Hopfield neural networks, CHOON KI AHN (71—78)
- > Global asymptotic stability of solutions of nonlinear quadratic Volterra integral equations of fractional order, S. ABBAS, M. BENCHOHRA and JOHNNY HENDERSON (79—89)

RESEARCH ANNOUNCEMENTS

- > Ground state solutions of superlinear Schrödinger equations, MARTIN SCHECHTER (91—97)
- > The ε -optimality conditions for multiobjective fractional programming problems, R.N. MOHAPATRA and R.U. VERMA (99--108)

VOLUME 19 NUMBER 2 APRIL 2012

CONTENTS

- > A straightening theorem for non-autonomous iteration,
MARK COMERFORD (1-23)
- > Application of a functional type compression expansion fixed point theorem for a right focal boundary value problem on a time scale,
X. LIU, JEFFREY T. NEUGEBAUER and SHAWN SUTHERLAND (25-39)
- > Basins of attraction of an anti-competitive system of difference equations in the plane,
M.R.S. KULENOVIC and M. NURKANOVIC (41-53)
- > On the semilocal convergence of the secant method with regularly continuous divided differences,
IOANNIS K. ARGYROS and SAID HILOUT (55-69)
- > Stability of coupled fixed point iteration and the continuous dependence of coupled fixed points,
M.O. OLATINWO (71-83)
- > Positive solutions of singular second order integral boundary value problem,
G. CHAI and J. PAN (85-98)
- 1. > Convergence of projection algorithms to approximate solutions of convex feasibility problems,
ALEXANDER J. ZASLAVSKI (99-105)

VOLUME 19

NUMBER 3

JULY 2012

CONTENTS

- > A new simple existence theorem for fully nonlinear elliptic equations,
GARY M. LIEBERMAN (1 – 13)
- > A resonance problem for degenerate semilinear elliptic equations,
RASMITA KAR (15 – 23)
- > Multiple solutions for a nonlocal perturbed elliptic problem of p-Kirchhoff type,
S. HEIDARKHANI and JOHNNY HENDERSON (25 – 39)
- > On generalized convolutions for Fourier transforms and application in solving nonlinear integral equations,
N.M. KHOA (41 – 57)

- > Existence results for nonlinear q-difference equations with nonlocal boundary conditions,
B. AHMAD, S.K. NTOUYAS and I.K. PURNARAS (59 – 72)
- > Traveling wave solutions of spatially periodic nonlocal monostable equations,

- WENXIAN SHEN and AIJUN ZHANG (73 - 101)
> Exact number of positive solutions for a class of quasilinear boundary value problems with a singular nonlinearity,
M. DERHAB and H. SEBBAGH (103 – 125)

VOLUME 19 NUMBER 4 OCTOBER 2012

CONTENTS

- > Hanson-Antczak -type generalized invex functions in semiinfinite minmax fractional programming, Part I: Sufficient optimality conditions,
G.J. ZALMAI (1 - 36)
- > Stability of the Picard iterative procedure for mappings which satisfy implicit relations,
IOANA TIMIS (37 - 44)
- > Existence of mild solutions for fractional impulsive semilinear integrodifferential equations in Banach spaces,
D.N. CHALISHAJAR, K. KARTHIKEYAN & J.J. TRUJILLO (45 -56)
- > Remarks on a generalized KKM theorem without convex hull,
SEHIE PARK (57 - 65)
- > On some common random fixed point theorems with PPF dependence in Banach spaces,
B.C. DHAGE, S.K. NTOUYAS & V.S. PATIL (67 - 81)
- > On some basic results for nonlinear first-order hybrid fractional differential equations,
B.C. DHAGE & P.V. MUGALE (83 -97)
- > Existence theorems of generalized abstract fuzzy economies in locally FC-uniform spaces,
X. WU & LEI WANG (99 - 109)
- > Equilibrium points for two related projective dynamical systems,
Y.Z. ZOU & C.Y. SUN (111 - 119)

VOLUME 20 NUMBER 1 JANUARY 2013

CONTENTS

- > A sufficient condition for the convergence of a certain modulus of smoothness in multidimensional setting,
LAURA ANGELONI and GIANLUCA VINTI (1 – 20)
- > An impulsive boundary value problem for singular multi-term fractional differential equations on the half line,
YUJI LIU and BASHIR AHMAD (21 – 54)
- > Hanson-Antczak – type generalized invex functions in semiinfinite minmax fractional programming, Part II:
First-order parametric duality models,
G.J. ZALMAI (55 – 85)
- > An example employing convexity in functional fixed point arguments,
RICHARD I. AVERY, PAUL W. ELOE and JOHNNY HENDERSON (87- 96)
- > Turnpike properties of approximate solutions in the calculus of variations without convexity assumptions,
ALEXANDER J. ZASLAVSKI (97- 108)

VOLUME 20 NUMBER 2 APRIL 2013

CONTENTS

- > Mathematical Modelling and Numerical Simulation of Calcium Oscillations in a Cardiac Mitochondria,
Daniel Goeleven and Rachid Oujja (1 – 24)
- > On Pointwise Convergence of Mellin Type Nonlinear m-Singular Integral Operators,
Carlo Bardaro, Harun Karsli and Gianluca Vinti (25 - 39)
- > Multiplicity of Positive Solutions for Fractional-Order Three-Point Boundary Value Problems,
Guotao Wang, Lihong Zhang and S.K. Ntouyas (41 – 53)
- > Eigenvalue Criteria for Existence of Positive Solutions to Singular Third-Order BVPs via the Index-Jump Property,
Nadir Benkaci-Ali, Abdelhamid Benmeza and Sotiris K. Ntouyas (55 – 74)
- > Explicit Estimates on Certain Dynamic Inequalities in Two Variables on Time Scales,
Deepak B. Pachpatte (75 – 89)
- > Existence Results for a Three-Point BVP and a Coupled System of Nonlinear Fractional Differential Equations Depending on First Derivative,
D. Foukrach, T. Moussaoui and S. K. Ntouyas (91- 106)
- > Robust Anti-synchronization for Nonlinear Chaotic Dynamic Systems via Error Passivation,
Choon Ki Ahn (107 - 114)

VOLUME 20 NUMBER 3 JULY 2013

CONTENTS

- L^∞ -Estimate for Some Quasilinear Degenerate Elliptic Equations,
> Albo Carlos Cavalheiro

01

Boundary Data Smoothness for Solutions of Higher Order Ordinary Differential

Equations with Integral Boundary Conditions, > Johnny Henderson	21
Global Attractivity in a Variable Coefficient Nonlinear Delay Differential Equation, > Chuanxi Qian	33
Hanson-Antczak-Type Generalized Invex Functions in Semiinfinite Minmax Fractional Programming Part III: Second-Order Parametric Duality Models, > G. J. Zalmai	45
Existence, Uniqueness and Stability for a Class of Interval Projective Dynamical Systems, > Xin-kun Wu, Zeng-bao Wu and Yun-zhi Zou	81
The Modified Simple Equation Method and its Applications for Solving Nonlinear Evolution Equations in Mathematical Physics, > E.M.E. Zayed	95

VOLUME 20 NUMBER 4 OCTOBER 2013

CONTENTS

- > Periodic Solutions of a Single Species Renewable Resources Under
Periodic Habitat Fluctuations with Harvesting and Allee Effects,
S. PATI, JOHN R. GRAEF, S. PADHI and P. K. KAR (1--16)
- > Controllability of Non-densely Defined Functional Mixed Integrodifferential
Equations in Banach Spaces,
K. D. KUCCHE and M. B. DHAKNE (17-- 32)
- > Second Order Multiobjective Fractional Symmetric Duality Over Cone
Constraints,
ANURAG JAYSWAL, A. K. PRASAD and I. AHMAD (33--46)
- > Some Relations Between Interval-valued Optimization and Variational-like
Inequality Problems,
ANURAG JAYSWAL, J. BANERJEE and R. U. VERMA (47--56)
- > The Neumann Problem for a Class of Degenerate Elliptic Equations,
RASMITA KAR (57--64)
- > Singular Perturbation of a Second-Order Nonlocal Boundary Value Problem,
X. LIN (65--72)
- > Iterative Method for Common Fixed Points for Family of Generalized
Asymptotically Quasi- ϕ -strict Pseudo-contractions,
BASHIR ALI and G. C. UGWUNNADI (73--86)

> On Some Nonhomogeneous Degenerate Quasilinear Equations Arising
in the Continuum Mechanics,
SAMI AOUAOU (87—108)

VOLUME 21 NUMBER 1 JANUARY 2014

CONTENTS

- The Boundedness Characterization of Three Families of Systems of Difference Equations,
> CHRIS D. LYND (1 - 20)
- Two-parameter Bifurcation Analysis of a Discrete Analogue of the Lotka-Volterra System,
> REZA KHOSHSIAR GHAZIANI (21 - 41)
- Dynamics of the Rational Difference Equation
$$x_{n+1} = \gamma x_n + \frac{\alpha x_{n-1} + \beta x_{n-k}}{Ax_{n-1} + Bx_{n-k}},$$

> E. M. E. ZAYED and M. A. EL-MONEAM (43 - 53)
- On the Semilocal Convergence of Derivative Free Chebyshev-Kurchatov Three Step Method for Solving Equations,
> IOANNIS K. ARGYROS and HONGMIN REN (55 - 64)
- Existence and Uniqueness of Solutions to Nonlinear Integral-Algebraic Equations with Variable Limits of Integrations,
> M.V. BULATOV, M.N. MACHKHINA and V.N. PHAT (65 – 76)
- On Some One-Dimensional Eigenvalue Problem Involving Variable Exponents,
> SAMI AOUAOUI (77 - 86)
- Supplementary Conditions for the Tricomi Equation,,
> J.-W. MONTGOMERY (87 - 99)

VOLUME 21 NUMBER 2 APRIL 2014

CONTENTS

- A Convergence Analysis of an R -Order Four Method with Reduced Computational Cost in Banach Spaces
> I. K. ARGYROS and S. K. KHATTRI (1 - 12)
- Agreeable Solutions for the Robinson-Solow-Srinivasan Model of Economic Dynamics\
> ALEXANDER J. ZASLAVSKI (13 - 28)
- Expanding the Applicability of the Gauss-Newton Method for Convex Optimization under a Condition
> I. K. ARGYROS and SANTOSH GEORGE (29 - 44)
- A Unified Approach for the Convergence of Nonlinear Kantorovich Type Operators
> FLAVIA VENTRIGLIA and GIANLUCA VINTI (45 - 74)
- A Study of Generalized Vector Rotational Problem and Quadratic T^{η} -invexity\
> PRASANTA KUMAR DAS (75 - 96)
- New Explicit Forms of Traveling Waves for Vibrational Dynamics of DNA Using a Direct Integral Method
> E.M.E. ZAYED (97 – 104)

VOLUME 21 NUMBER 3 JULY 2014

CONTENTS

- Positive Solutions for Systems of Multi-point Nonlinear Boundary Value Problems
> Johnny Henderson and Rodica Luca (1 – 12)
- Non-existence of Solutions for Non-autonomous Elliptic Systems of Hamiltonian Type
> Philip Korman (13 – 20)
- A New System of Extended Nonlinear Regularized Nonconvex Set-valued Variational Inequalities
> Jong Kyu Kim, Salahuddin and A. Farajzadeh (21 – 40)
- Existence Results for Prion Disease Model with Impulse Effects
> Abdelkader Lakmeche, Imane Mammar and Abdelghani Ouahab (41 – 52)
- Analysis and Simulations of Travelling Waves in a Single Species Reaction-Diffusion Model with Spatiotemporal Delay
> Gaoxiang Yang and Jian Xu (53 – 66)
- Solution to Time Fractional Wave Equation in the Presence of Friction Via Integral Transform
> A. Aghili and H. Zeinali (67 – 88)
- Nonlinear Second-order Impulsive q -difference Equations
> Phollakrit Thiramanus, Sotiris K. Ntouyas and Jessada Tariboon (89 - 102)

VOLUME 21 NUMBER 4 OCTOBER 2014

CONTENTS

- On the Global Character of the Difference Equation, Part 1
> E. DRYMONIS (1 - 15)
- On the Exponential Stability of Nonlinear Difference Equations in Banach Spaces
> N.S. BAY (16 - 26)
- Approximating Monotonically the Unique Random Solutions of Second Order Random Differential Equations
> B.C. DHAGE (27 - 39)
- Pricing Models of Dynamic Reverse Mortgage
> H. YANG, W. -Y. YAN and D. -Y. REN (40 - 55)
- LMI-Based Synchronization for Uncertain Fractional-Order Chaotic Systems
> K. YAN, Y. Fang and K. LI (56 - 71)
- Response Surface Analysis with Regression Models for Quantitative Evaluation on the Quality of Wine
> W. MAO, A. -Y. CHEN, H. -Y. LAN and J. DU (72 - 80)
- On the Strong Solutions of Two Operator Equations in Hilbert Space for a Kirk-Mann Iterative Process
> M. O. OLATINWO (81 - 88)
- Convergence Theorems of S-iteration Process for Quasi-contractive Mappings in Banach Spaces
> J.K. KIM, S. DASHPUTRE and H.G. HYUN (89 – 99)

VOLUME 22 NUMBER 1 JANUARY 2015

CONTENTS

- Existence of Minimal and Maximal Solutions for a Second Order Quasilinear Impulsive Differential Equation with Integral Boundary Conditions
> M. DERHAB and H. MEKNI (1 - 21)
- Existence of Solutions for a Fractional Boundary Value Problem with Lower-Order Fractional Derivative Dependence on the Half-line
> AMINA BOUCENNA and T. MOUSSAOUI (22 - 45)
- Existence and Stability Results for Nonlinear Implicit Neutral Fractional Differential Equations with Finite Delay and Impulses
> M. BENCHOHRA, S. BOURIAH and JOHNNY HENDERSON (46 - 67)
- On Parametric Generalized Vector Quasi Equilibrium Problems
> SALAHUDDIN and R.U. VERMA (68 - 79)
- A Multiplicity Result for Some Eigenvalue Problem Involving Exponential Growth Condition
> SAMI AOUAOUI (80 - 90)
- Sensitivity Analysis for General Nonlinear Nonconvex Variational Inequalities
> SALAHUDDIN and R.U. VERMA (91 - 100)

VOLUME 22 NUMBER 2 APRIL 2015

CONTENTS

- Some New Lyapunov-type Inequalities for Third Order Differential Equations**
JOHN R. GRAEF, R. MAHMOUD, S.H. SAKER AND E. TUNC (1 -16)
- Generalized Parametric Duality Models in Discrete Minmax Fractional Programming Based on Second-Order Optimality Conditions**
RAM U. VERMA AND G.J. ZALMAI (17 - 36)
- A Note on Minkowski's Inequality**
X. -X. GAN (37 - 45)
- A New Approach of the Parallel Sum: Properties and Algorithmic Aspects**
A. MOUDAFI AND M. RAMAZANNEJAD (46 - 57)
- Generalized Second-Order Parameter-Free Optimality Conditions in Discrete Minmax Fractional Programming**
RAM U. VERMA AND G.J. ZALMAI (58 - 79)
- Approximate Solutions of Common Fixed Point Problems**
ALEXANDER J. ZASLAVSKI (80 - 89)
- Well Posed Generalized Vector Quasi Equilibrium Problems**
SALAHUDDIN AND RAM U. VERMA (90 - 102)

VOLUME 22 NUMBER 3 JULY 2015

CONTENTS

- On a First Order Rational System of Difference Equations with Non-Constant Coefficients,
> **Yevgeniy Kostrov and Zachary Kudlak (1 - 24)**
- Separation for a Biharmonic Higher-order Ordinary Differential Equation in a Hilbert Space Associated with an Existence and Uniqueness Theorem,
> **Elsayed M. E. Zayed (25 - 33)**
- Approximating Monotonically the Unique Random Solutions of Second Order Periodic Random Boundary Value Problems,

> Bapurao C. Dhage and Ram G. Metkar (34 - 44)

A Theoretical Study of a Free Surface Flow Problem with Superficial Tension,

> C. Titri-Bouadjenak, R. Ait-Yahia-Djouadi, D. Hernane-Boukari and D.E. Teniou (45 - 60)

Jacobi Multi-Wavelets Adaptive Method for Numerical Simulation of Gas\ Separations
Hollow Fiber Membranes,

> Hamou Maamar Maghnia and Omar Belhamiti (61 - 81)

On the Existence of Positive Solutions for a Variational Inequality of Kirchhoff Type
on the Half-line,

> Ouided Frites and Toufik Moussaoui} (82 - 92)

On Abstract Nonlinear Fractional Integrodifferential Equations with Integral Boundary Condition,

> S. D. Kendre, V. V. Kharat and T. B. Jagtap (93 - 108)

VOLUME 22 NUMBER 4 OCTOBER 2015

CONTENTS

Multiplicity Results for Singular Second Order Boundary Value Problems,

> A. Benmezai, W. Esserhane and Johnny Henderson (1 - 28)

On Sufficiency for Semiinfinite Multiobjective Fractional Programming Problems Using Generalized (α, η, ρ) - V -Univex Functions,

> S.K. Mishra and S.K. Porwal (29 - 48)

Existence of Positive Solutions for a Third Order Multi-point Boundary Value Problem with Delay, \

> S. Blaha, Ahmed Lakmeche, A. Lakmeche and S. Mokeddem (49 - 61)

A Unified Convergence Analysis for a Certain Family of Iterative Algorithms with Applications to Fractional Calculus,

> George A. Anastassiou and Ioannis K. Argyros (62 - 78)

Generalized Higher Order Hybrid Invexities with Second-Order Parametric Optimalty Criteria for Discrete Minmax Fractional Programming,

> R.N. Mohapatra and R.U. Verma (79 - 94)

Split Feasibility Quasi Variational Inequality Problems involving cocoercive mappings in Banach Spaces,

> Salahuddin and R.U. Verma (95 - 101)

VOLUME 23 NUMBER 1 JANUARY 2016

CONTENTS

Convergence of solutions of concave discrete optimal control problems in the regions close to the endpoints,

> Alexander J. Zaslavski (1 - 10)

Higher order parametric optimality conditions in semiinfinite discrete minmax fractional programming based on generalized $(\phi, \eta, \zeta, \rho, \theta, \tilde{m})$ -sonvexities,

> Ram U. Verma and G. J. Zalmai (11 - 33)

Discretized Newton-Tikhonov Method for Ill-posed Hammerstein type equations,

> Ioannis K. Argyros, Santhosh George and M. E. Shobha (34 - 55)

Local Convergence of inexact Gauss-Newton-like method for least square problems under weak Lipschitz condition,

- > **Ioannis K. Argyros and Santhosh George (56 - 70)**
Extended systems of nonlinear vector quasi variational inclusions and extended systems of nonlinear vector quasi optimization problems in locally FC-spaces,
 > **Salahuddin and Ram U. Verma (71 - 88)**

- Strong convergence theorems of Bregman totally quasi-asymptotically nonexpansive semi-groups in reflexive Banach spaces,**
 > **Jinhua Zhu, Shih-sen Chang and Min Liu (89 - 103)**

VOLUME 23 NUMBER 2 APRIL 2016

CONTENTS

- On a system of Riemann-Liouville fractional boundary value problems,
 > **Johnny Henderson and Rodica Luca (1 - 19)**
 On generalized vector quasi-equilibrium problems in Hadamard manifolds with an application,
 > **Da-peng Gao and Shi-qiang Feng (20 - 32)**
 Periodic solutions of Clarke's subdifferential type evolution inclusions with multivalued perturbations,
 > **Yi-rong Jiang (33 - 56)**
 Generalized Newton-like methods for local convergence analysis,
 > **Ioannis K. Argyros and Ram U. Verma (57 - 62)**
 Hybrid second-order parametric optimality conditions in discrete minmax fractional programming,
 > **Ram U. Verma and G. J. Zalmai (63 - 94)**
 Estimates of some applicable inequalities on time scales,
 > **Deepak B. Pachpatte (95 - 103)**

Volume 23 Number 3 July 2016

CONTENTS

- Second-order parametric optimality conditions in discrete minmax fractional programming,
 > **Ram U. Verma and G. J. Zalmai (1 - 32)**
 Boundary value problems for differential inclusions with integral and anti-periodic conditions,
 > **N. Guerraiche, S. Hamani and J. Henderson (33 - 46)**
 A system of generalized implicit variational inclusions in Banach spaces,
 > **W. Zhou, Shu-qiang Shan and Yi-lin Wang (47 - 56)**
 Global existence results for second order evolution equations,
 > **M. Benchohra, J. Henderson and N. Rezoug (57 - 67)**
 On the hyper-order of solutions of nonhomogeneous linear differential equations with entire coefficients,
 > **N. El Imane K. Cheriet and K. Hamani (68 - 78)**
 Multiobjective variational problem through generalized (F, ρ) -invex functionals of higher order,
 > **P. Kumar and Bharti Sharma (79 - 92)**

Global behavior of a system of rational difference equations,
> **Mai Nam Phong** (93 - 107)

Volume 23 Number 4 October 2016

CONTENTS

Robust finite-time stabilization of nonlinear systems with multiple Delays in States and Controls,
> **P. Niamsup, N.T. Thanh and Vu N. Phat** (1 - 13)

Nonautonomous Riccati difference equation with real ω -periodic ($\omega \geq 0$) coefficients,
> **Raouf Azizi** (14 - 32)

Application of the functional compression-expansion fixed point theorem using comparison functionals involving the derivative,
> **R.I. Avery, D.R. Anderson and J. Henderson** (33 - 40)

Critical points concept: A fixed point approach,
> **A. Moudafi** (41 - 47)

Existence and uniqueness results for nonlinear implicit fractional differential equations with delay in Fréchet spaces,
> **M. Benchohra and Kadda Mazouz** (48 - 59)

Proximal point algorithm with computational errors and approximate solutions of variational inequalities,
> **A.J. Zaslavski** (60 - 71)

Local convergence for inverse free Jarratt-type method in Banach space under Holder conditions,
> **I.K. Argyros and S. George** (72 - 81)

On penalty methods for non-stationary general set-valued equilibrium problems,
> **Salahuddin** (82 - 92)

A nonlinear fractional boundary value problem involving Riemann-Liouville fractional derivatives of two different orders,
> **John R. Graef, M. Wang and G. Yost** (93 - 102)

Volume 24 Number 1 January 2017

CONTENTS

A new class of global fractional-order projective dynamical systems in Hilbert spaces,
> **Z.B. Wu, Y.Z. Zou, X.S. Li and Y.B. Xiao** (1 - 16)

Second-order self-adjoint differential equations using a proportional-derivative controller,
> **Douglas R. Anderson** (17 - 48)

New parametric optimality conditions for semiinfinite discrete minmax fractional programming problems,

> **Ram U. Verma and G. J. Zalmai (49 - 71)**

Ball convergence for two-parameter Chebyshev-Halley-like methods in Banach space using hypotheses only on the first derivative,

> **Ioannis K. Argyros and S. George (72 - 81)**

On a generalized subclass of analytic and bi-univalent functions,\

> **Pravati Sahoo and Saumya Singh (82 - 90)**

Hybrid type new generation Newton methods with cubic convergence rates,

> **Ram U. Verma (91 – 98)**

Existence and stability of solutions for generalized quasi-variational\ hemivariational inequalities,

> **Bin Chen (99 – 109)**

Volume 24

Number 2

April 2017

CONTENTS

Growth of transcendental meromorphic solutions of some higher order linear differential equations,

> **Karima Hamani and Benharrat Belaidi (1 – 17)**

Best p -simultaneous approximation in $K^{\{o\}}$ the Bochner function spaces,

> **Mona Khandaqji (18 – 27)**

Generalized projections and equivalent representations of James orthogonal decompositions in Banach spaces,

> **Ya. I. Alber (28 – 48)**

Extending the local convergence analysis of Newton's method,

> **Ioannis K. Argyros and Nirjal Shrestha (49 – 60)**

Hanson-Antczak-type $(\alpha, \beta, \gamma, \xi, \eta, \omega, \rho, \theta)$ - V -sonvexities

in semiinfinite\ multiobjective fractional programs for second-order parametric duality models,

> **Ram U. Verma and G. J. Zalmai (61 – 92)**

Existence results of first-order differential equations with integral boundary conditions at resonance,

> **M. Derhab, T. Khedim and B. Messirdi (93 – 106)**

Volume 24

Number 3

July 2017

CONTENTS

Chemotherapeutic treatment models by drugs with instantaneous effects,

> **F. Charif, M. Helal and A. Lakmeche (1 - 24)**

New generation duality models in discrete minmax fractional programming on sonvexities,

> **R. N. Mohapatra and R. U. Verma (25 - 47)**

Impulsive fractional differential equations involving the Hadamard \fractional derivative,

> **S. Hamani, A. Hammou and J. Henderson (48 - 58)**

Set valued exponential type g -mixed vector variational inequality problems,

> **Salahuddin (59 - 73)**

On interval-valued \eta-pseudolinear optimization problems,

> **Vivek Laha, Amod Kumar and S. K. Mishra (74 - 89)**

Minimax fractional integral programming I,
> **Ram U. Verma (90 – 103)**