

COMMUNICATIONS

FACULTY OF SCIENCES
UNIVERSITY OF ANKARA

DE LA FACULTE DES SCIENCES
DE L'UNIVERSITE D'ANKARA

Series A1: Mathematics and Statistics

VOLUME: 68

Number: 1

YEAR: 2019

Faculty of Sciences, Ankara University
06100 Beşevler, Ankara-Turkey
ISSN 1303-5991 e-ISSN 2618-6470

C O M M U N I C A T I O N S

FACULTY OF SCIENCES
UNIVERSITY OF ANKARA

DE LA FACULTE DES SCIENCES
DE L'UNIVERSITE D'ANKARA

Series A1: Mathematics and Statistics

Volume 68

Number : 1

Year :2019

Owner (Sahibi)

Selim Osman SELAM, Dean of Faculty of Sciences

Editor in Chief (Yazı İşleri Müdürü)

Nuri ÖZALP

Managing Editor

Erdal GÜNER

Area Editors

Ahmet ARIKAN (Group Theory)

Gülen TUNCA (Analysis-Operator Theory)

Yusuf YAYLI (Geometry)

Yılmaz AKDİ (Statistics)

Burcu Ungor (Rings and Modules Theory)

Murat ŞAHİN (Number Theory)

Elif DEMİRCİ (Applied Mathematics)

Murat OLGUN (Functional Analysis)

Mehmet UNVER (Analysis)

İshak ALTUN (Topology)

Oktay DUMAN (Summability and Approx. Theory)

Oktay ÖLMEZ (Coding Theory, Combinatorics)

Editors

M. AKHMET METU TURKEY

Elgiz BAIRAMOV Ankara University, TURKEY

C.Y. CHAN University of Louisiana, USA

V. GREGORI Univ. Politècnica de València, SPAIN

A. HARMANCI Hacettepe University, TURKEY

A. KABASINSKAS Kaunas U.of Tech., LITHUANIA

S. KOKSAL Florida Inst. of Tech., USA

H.T. LIU Tatung University, TAIWAN

S. ROMAGUERA Uni. Pol. de València, SPAIN

C. TEZER METU, TURKEY

O. ARSLAN Ankara University, TURKEY

H. BEREKETOĞLU Ankara University, TURKEY

A. B. EKİN Ankara University, TURKEY

V.S. GULIYEV Nat. Acad. of Sci, AZERBAIJAN

F.HATHOUT Université de Saïda, ALGERIA

V. KALANTAROV Koç University, TURKEY

A. M. KRALL The Penn. State University, USA

Vishnu Narayan MISHRA S. V.NIT., INDIA

H. M. SRIVASTAVA, Univ. of Victoria, CANADA I.P. STAVROULAKIS Uni. of Ioannina, GREECE

A.D. TÜRKOĞLU Gazi University, TURKEY

A. AYTUNA Sabancı University, TURKEY

H. BOZDOĞAN Uni. of Tennessee, USA

D. GEORGIOU Uni.of Patras, GREECE

I GYORI Veszprem University, HUNGARY

K. ILARSLAN Kırıkkale Uni., TURKEY

F. KARAKOC Ankara University, TURKEY

H.P. KUNZI Uni. of CT, SOUTH AFRICA

C. ORHAN Ankara University, TURKEY

S. YARDIMCI Ankara University, TURKEY

This Journal is published two issues in a year by the Faculty of Sciences, University of Ankara. Articles and any other material published in this journal represent the opinions of the author(s) and should not be construed to reflect the opinions of the Editor(s) and the Publisher(s).

Correspondence Address:

COMMUNICATIONS

EDITORIAL OFFICE

Ankara University, Faculty of Sciences,

06100 Tandoğan, ANKARA – TURKEY

Tel: (90) 312-212 67 20 Fax: (90) 312-223 50 00

e-mail: commun@science.ankara.edu.tr

<http://communications.science.ankara.edu.tr/index.php?series=A1>

Print:

Ankara University Press

İncitaş Sokak No:10 06510 Beşevler

ANKARA – TURKEY

Tel: (90) 312-213 66 55

C O M M U N I C A T I O N S

FACULTY OF SCIENCES
UNIVERSITY OF ANKARA

DE LA FACULTE DES SCIENCES
DE L'UNIVERSITE D'ANKARA

Series A1: Mathematics and Statistics

Volume: 68 **Number: 1** **Year: 2019**

D. T. TOLLU, İ. YALÇINKAYA, Global behavior of a three-dimensional system of difference equations of order three	1
Ş. ÖZDEMİR, Y. GÜNEY, Y. TUAÇ, O. ARSLAN, Maximum Lq-likelihood estimation for the parameters of Marshall-Olkin extended Burr XII distribution	17
Ö. ACAR, Generalization of $(\alpha-F_{\{d\}})$ -contraction on quasi-metric space	35
M. DEMIRCI, Flat strong δ -covers of modules	43
F. M. SAKAR, H. Ö. GÜNEY, Coefficient estimates for bi-concave functions	53
E. SET, M. E. ÖZDEMİR, N. KORKUT, Certain new Hermite-Hadamard type inequalities for convex functions via fractional integrals	61
M. A. DEGHANI, B. DAVVAZ, On the representations and characters of CAT ¹ -groups and crossed modules	70
M. KAYA, Ö. KAZAR, Ü. DİNLEMEZ KANTAR, On the rate of convergence of the g-Navier-Stokes equations	87
H.TANIL, A generalized version of Foster and Stuart's d-statistic	98
T. ERISIR, M. A. GÜNGÖR, S. ERSOY, On the construction of generalized Bobillier formula	111
A. MOTAMEDNEZHAD, S. NOSRATI, S. ZAKER, Bounds for initial MacLaurin coefficients of a subclass of bi-univalent functions associated with subordination	125
S. K. DATTA, T. BISWAS, Growth estimates of entire functions with the help of their relative L ² -types and relative L ² - weak types	136
C. BIÇER, H. DEMIRCI BIÇER, M. KARA, H. AYDOĞDU, Statistical inference for geometric process with the Rayleigh distribution	149
M. ALIZADEH, E. ALTUN, A. Z. AFIFY, G. OZEL, The extended odd Weibull-G family: properties and applications	161
M. ÖZHAVZALI, A. OLGUN, On approximation properties of two variables of modified Kantorovich-type operators	187
S.H. AYDIN, Stabilized FEM solutions of MHD equations around a solid and inside a conducting medium	197
Z. BEDİR, Ö. GÖLBAŞI, On commutativity of prime near-rings with multiplicative generalized derivation	209
H.M. DIDA, F. HATHOUT, A. AZZOUZ, On the geometry of the tangent bundle with vertical rescaled metric	222
O. DUYAR, S. DEMIRIZ, On vector-valued operator Riesz sequence spaces	236
M. Ç. KORKMAZ, A new family of the continuous distributions: the extended Weibull-G family	248
T. TANRIVERDI, Classical way of looking at the Lane-Emden equation	271
E. İYİGÜN, A study on a partially null curve in E ₂ ⁴	277
N.ÇETİN, On complex modified genuine Szász-Durrmeyer-Stancu operators	283
E. PEYGHAN, L. NOURMOHAMMADIFAR, C. M. ARCUŞ, Vertical and complete lifts of sections of a (dual) vector bundle and Legendre duality	299
N. ÖZDEMİR, Ş. AKTAY, M. SOLGUN, Quasi-Sasakian structures on 5-dimensional nilpotent Lie algebras	326
A. SEZGIN, N. ÇAĞMAN, F. ÇITAK, α -inclusions applied to group theory via soft set and logic	334
A. YOKUŞ, Numerical solutions of time fractional Korteweg--de Vries equation and its stability analysis	353
H. A. ÇOBAN, Complete system of invariants of vectors for isometry group in n-dimensional unitary space	362
G. MERAL, İ. Ç. YAMANLAR, Mathematical analysis and numerical simulations for the cancer tissue invasion model	371
V. GUPTA, R. K. SAINI, M. VERMA, Fixed point theorems for single valued α - ψ -mappings in fuzzy metric spaces	392
C. KUŞ, Y. AKDOĞAN, A. ASGHARZADEH, İ. KINACI, K. KARAKAYA, Binomial-Discrete Lindley distribution	401

C O M M U N I C A T I O N S

FACULTY OF SCIENCES
UNIVERSITY OF ANKARA

DE LA FACULTE DES SCIENCES
DE L'UNIVERSITE D'ANKARA

Series A1: Mathematics and Statistics

Volume: 68 **Number: 1** **Year: 2019**

O. ERSOY HEPSON, A. KORKMAZ, I. DAG, On the numerical solution of the Klein-Gordon equation by exponential cubic B-spline collocation method	412
E. ÖZTÜRK, Asymptotic behavior of the non-autonomous reaction-diffusion equation with robin boundary condition	422
E. AYYILDIZ, G. ÖZÇELİK, C. TEMEL GENCER, Determining the most vital arcs on the shortest path for fire trucks in terrorist actions that will cause fire	441
B. ALTUNKAYA, F. KAHRAMAN AKSOYAK, Null curves of constant breadth in Minkowski 4-space	451
D. AYDIN ARI, A note on statistical approximation properties of complex q-Szász- Mirakjan operators	457
M. GÜLBAHAR, M. M. TRIPATHI, E. KILIÇ, Inequalities involving k-Chen invariants for submanifolds of Riemannian product manifolds	466
A. ERCAN, E. PANAKHOV, Stability of the reconstruction discontinuous Sturm-Liouville problem	484
S. ŞENYURT, Y. ALTUN, C. CEVAHIR, Smarandache curves according to Sabban frame belonging to Mannheim curves pair	500
I. BAGLAN, Fourier method for inverse coefficient Euler-Bernoulli beam equation	514
N.FARIED, M. S. S. ALI, Z.M. YEHA, On Andersson's inequality for hyperbolicly convex functions	528
D.V. KRISHNA, D. SHALINI, Best bound for λ - Pseudo starlike functions	538
F. ÖZGER, Some geometric characterizations of a fractional Banach set	546
I. KÜPELİ ERKEN, On almost α -para-Kenmotsu manifolds satisfying certain conditions	559
E. İNAN, Approximately groups in proximal relator spaces	572
U. BEYAZTAS, Iterated bootstrap procedure in individual bioequivalence	583
S. YALAZ, Wavelet estimation of semiparametric errors in variables model	595
M. KAYA, E. ÇANKAYA, O. ARSLAN, Robust Bayesian Regression Analysis Using Ramsay-Novick Distributed Errors with Student-t Prior	602
T. ŞAHAN, A. ERCİYES, Actions of internal groupoids in the category of Leibniz algebras	619
S.ÖZKALDI KARAKUŞ, A new representation of constant angle surfaces in $H^2 \times R$ with split quaternions	633
J. WU, Y. ASAR, On the stochastic restricted Liu-type maximum likelihood estimator in logistic regression model	643
S. HAJIPARVANEH, A. ZIREH, Coefficient estimates for certain subclass of meromorphic and bi-univalent functions	654
I. ERDAL, Ş. YARDIMCI, Eigenvalues and scattering properties of difference operators with impulsive condition	663
H. ÖZIMAMOĞLU, M. ŞAHİN, O. ÖLMEZ, k -autocorrelation and its applications	672
F. USTA, H. BUDAĞ, F. ERTUGRAL, M. Z. SARIKAYA, The Minkowski's inequalities utilizing newly defined generalized fractional integral operators	686
A. PANCAR, B. NIŞANCI TÜRKMEN, C. NEBİYEV, E. TÜRKMEN, On a new variation of injective modules	702
M. MURSALEEN, M. YILDIRIM, N. DURNA, On the spectrum and Hilbert Schimidt properties of generalized Rhaly matrices	712
E. MAZI, S. ALTINKAYA, On a new subclass of bi-univalent functions satisfying subordinate conditions	724
S. TURHAN, İ. İŞCAN, On New Hermite-Hadamard-Fejér type inequalities for harmonically quasi convex functions	734
H. ÇAYIR, Derivatives of Sasakian metric S_g on Cotangent Bundle	751
A. E. OZALP, I. ASKERZADE, A data science study for determining food quality: an application to wine	762
M. CRASMAREANU, A class of submersions and compatible maps in Finsler geometry	771
E.TOKLU, İ. AKTAŞ, F. SAĞSÖZ, On new subclasses of bi-univalent functions defined by generalized Sălăgean differential operator	776

C O M M U N I C A T I O N S

FACULTY OF SCIENCES
UNIVERSITY OF ANKARA

DE LA FACULTE DES SCIENCES
DE L'UNIVERSITE D'ANKARA

Series A1: Mathematics and Statistics

Volume: 68 **Number: 1** **Year: 2019**

M. BARAN, M. QASIM, T_1 Approach spaces	784
R. GUBRAN, W. M. ALFAQIH, M. IMDAD, Fixed point results for F-expansive mappings in ordered metric spaces	801
A. DERTLI, Y. CENGELLENMIS, On the linear codes over the ring $Z_4+v_1Z_4+\dots+v_lZ_4$	809
E. UNLUYOL, Y. ERDAŞ, S. SALAŞ, Newinequalities in terms of operator m-convex functions in Hilbert space	824
O. OZTURK, R. YILMAZER, Solutions of the radial Schrödinger equation in hypergeometric and discrete fractional forms ..	833
S. E. ATANI, S. D. PISHHESARI, M. KHORAMDEL, Z. E. SARVANDI, Intersection graphs of co-ideals of semirings	840
S. BEYENDI, G. AYAR, N. AKTAN, On a type of α -cosymplectic manifolds	852
T. M. BARAN, M. KULA, Local pre-Hausdorff extended pseudo-quasi-semi metric spaces	862
B. B. KOCA, N. SADIK, A method for solving general singular equations and its application	871
Z. VELİOĞLU, Parafree metabelian Lie algebras which are determined by parafree Lie algebras	883
M. SIVABALAN, K. SATHIYANATHAN, Relative controllability results for nonlinear higher order fractional delay integrodifferential systems with time varying delay in control	889
İ. H. GÜMÜŞ, M. AKIC, Some inequalities for positive multilinear mappings	907
S. VARMA, Some new d-orthogonal polynomial sets of Sheffer type	913
G. NANDINI, M. VENKATACHALAM, S. GOWRI, On r -dynamic coloring of the family of bistar graphs	923
R. NIRMALKUMAR, R. MURUGESU, Approximate controllability of second-order stochastic non-autonomous integrodifferential inclusions by resolvent operators	929
A. ROHINI, M. VENKATACHALAM, On irregular colorings of double wheel graph families	944
İ. İŞCAN, M. KADAKAL, H. KADAKAL, On two times differentiable preinvex and prequasiinvex functions	950
R. ÖZTÜRK MERT, B. YILMAZ, Z. I. ISMAILOV, Multipoint selfadjoint quasi-differential operators for first order	964
A. KASHURI, R. LIKO, Some Caputo k-fractional derivatives of Ostrowski type concerning (n+1)-differentiable generalized relative semi-(r;m,p,q,h ₁ ,h ₂)-preinvex mappings	973
Ü. YILDIRIM, M. ATÇEKEN, S. DIRİK, Pseudo projective curvature tensor satisfying some properties on a normal paracontact metric manifold	997
T. BISWAS, Further study on the results of Sheremeta	1007
P. METE, E. E. ZENGİN, On minimal free resolution of the associated graded rings of certain monomial curves : New proofs in A^4	1019
F. G. AKGÜL, Ş. ACITAŞ, B. ŞENOĞLU, Estimation of the location and the scale parameters of Burr Type XII distribution	1030
E. BUZDOĞAN-LINDENMAYR, G. KARA, A. S. SELCUK-KESTEL, Assessment of supplier risk for copper procurement	1045
M. R. S. IAMMI, D. F. M. TORRES, Existence of solution to a nonlocal conformable fractional thermistor problem	1061
S. HARROUDI, J. DANANE, K. ALLALI, Analysis and optimal control of an HIV model with logistic growth and infected cells in eclipse phase	1073
H. ANSARI-TOROGHY, F. FARSHADIFAR, Quasi 2-absorbing second modules	1090
L. SALHI, H. ROUAH, A. TAIK, Influence of natural convection on stability of an inclined front propagation	1097
A. EL ALAMI, A. BOUTOULOUT, R. YAFIA, Output stabilization of semilinear parabolic systems with bounded feedback	1114
F. AKDENİZ, F. ÖZTÜRK, Reviving some geometric aspects of shrinkage estimation in linear models	1123
M. HAMELDARBANDI, M. YILMAZ, A new perspective of transmuted distribution	1144
G. OGUZ, I. ICEN, M. H. GURSOY, Actions of soft groups	1163

C O M M U N I C A T I O N S

FACULTY OF SCIENCES
UNIVERSITY OF ANKARA

DE LA FACULTE DES SCIENCES
DE L'UNIVERSITE D'ANKARA

Series A1: Mathematics and Statistics

Volume: 68

Number: 1

Year: 2019

O. Z. OKUYUCU, C. DEĞIRMEN, Ö. G. YILDIZ, Smarandache Curves in three dimensional Lie groups	1175
B.BAYOUR, D. F. M. TORRES, Structural derivatives on time scales	1186
H. M. ZAYED, S. BULUT, A. O. MOSTAFA, Quasi-subordination and coefficient bounds for certain classes of meromorphic functions of complex order	1197
M. TAMILSELVAN, Approximate controllability of neutral integrodifferential inclusions via resolvent operators	1206
M. KALPANA, D. VIJAYALAKSHMI, On b-coloring of central graph of some graphs	1229