
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS

Volume 49 Issue 6 (2020)

E-ISSN: 2651-477X

Honorary Editor

Lawrence Michael Brown

Editor in Chief

Mathematics

Ayşe Çiğdem Özcan (Hacettepe University, Mathematics - hjms@hacettepe.edu.tr)

Statistics

Nursel Koyuncu (Hacettepe University, Statistics - statisticsshjms@gmail.com)

Associate Editors

Bülent Saraç (Hacettepe University, Mathematics - bsarac@hacettepe.edu.tr)

Ash Yıldız (Hacettepe University, Mathematics - aslipekcan@hacettepe.edu.tr)

Derya Ersel (Hacettepe University, Statistics - dtektas@hacettepe.edu.tr)

Yasemin Kayhan Atılğan (Hacettepe University, Statistics - ykayhan@hacettepe.edu.tr)

Production Editors

Gülbanu Tekbulut (Hacettepe University - dergilerhacettepe@gmail.com)

O. Oğulcan Tuncer (Hacettepe University, Mathematics - otuncer@hacettepe.edu.tr)

Talha Arıkan (Hacettepe University, Mathematics - tarikan@hacettepe.edu.tr)

Nurbanu Bursa (Hacettepe University, Statistics - nurbanubursa@hacettepe.edu.tr)

Ayfer Ezgi Yılmaz (Hacettepe University, Statistics - ezgiyilmaz@hacettepe.edu.tr)

Özge Karadağ Ataş (Hacettepe University, Statistics - ozgekaradag@hacettepe.edu.tr)

Area Editors

Mathematics

Evrım Akalan (Associative Rings and Algebras - eakalan@hacettepe.edu.tr)

Okay Çelebi (Partial Differential Equations - acelebi@yeditape.edu.tr)

Olgür Çelikbaş (Commutative Rings and Algebras - olgur.celikbas@math.wvu.edu)

Angel Del Rio (Algebra, Group Theory - adelrio@um.es)

Gülin Ercan (Algebra, Group Theory - ercan@metu.edu.tr)

Sergio Estrada (Homological Algebra - sestrada@um.es)

Rodrigo Hernandez Gutierrez (General Topology - rod@xanum.uam.mx)

Varga Kalantarov (Partial Differential Equations - vkalantarov@ku.edu.tr)

Emre Mengi (Numerical Analysis - emengi@ku.edu.tr)

Cihan Orhan (Analysis, Summability - orhan@science.ankara.edu.tr)

Murad Özaydın (Differential Geometry, Global Analysis - mozaydin@math.ou.edu)

Abdullah Özbekler (Ordinary Differential Equations - aozbekler@gmail.com)

Ekin Özman (Number Theory, Algebraic Geometry - ekin.ozman@boun.edu.tr)

Serap Öztıp Kaptanoğlu (Abstract Harmonic Analysis - oztips@istanbul.edu.tr)

Mehmetçik Pamuk (Topology, Manifolds and Cell Complexes - mpamuk@metu.edu.tr)

Bülent Ünal (Differential Geometry - bulent@fen.bilkent.edu.tr)

Yunus E. Zeytuncu (Functions of Several Complex Variables - zeytuncu@umich.edu)

Shiping Liu (Combinatorics and Differential Geometry - spliu@ustc.edu.cn)

Statistics

Ali Allahverdi (Operational Research & Statistics - ali.allahverdi@ku.edu.kw)
Olçay Arslan (Robust Statistics - oarslan@ankara.edu.tr)
Narayanaswany Balakrishnan (Applied Statistics, Theory of Statistics - bala@mcmaster.ca)
Adil Baykasoğlu (Operational Research - adil.baykasoglu@deu.edu.tr)
Haydar Demirhan (Categorical Data Analysis, Monte Carlo Simulation - haydar.demirhan@rmit.edu.au)
Sat Gupta (Sampling, Time Series - sngupta@uncg.edu)
Tahir Hanalioğlu (Stochastic Processes Theory, Probability Theory - tahirkhaniyev@etu.edu.tr)
Burcu Hüdaverdi (Time Series Analysis, Multivariate Statistics - burcu.hudaverdi@deu.edu.tr)
Zeynep Işıl Kalaylıoğlu (Bayesian Inference, Model Selection - kzeynep@metu.edu.tr)
Hasan Örkücü (Data Envelopment Analysis, Operation Research - hhorkcu@gazi.edu.tr)
Birdal Şenoğlu (Experimental Design, Statistical Distributions - senoglu@science.ankara.edu.tr)

Contents

Mathematics

Research Articles

- 1 Higher dimensional algebras as ideal maps
by Alper Odabaş and Erdal Ulualan 1865
- 2 Fractal quintic spline method for nonlinear boundary-value problems
by N. Balasubramani, M. Guru Prem Prasad and S. Natesan 1885
- 3 Addendum to “Semi-Hurewicz spaces” [Hacet. J. Math. Stat. 46 (1), 53-66, 2017]
by Manoj Bhardwaj 1904
- 4 On abstract generalized topological spaces generated by the density type operators
by Jacek Hejduk and Anna Loranty 1907
- 5 Various spectra and energies of commuting graphs of finite rings
by Walaa Nabil Taha Fafous, Rajat Kanti Nath and Reza Sharafdini 1915
- 6 Radio k -labeling of paths
by Lazman Saha, Satyabrata Das, Kinkar Chandra Das and Kalishankar Tiwary 1926
- 7 Translation surfaces in affine 3-space
by Mohamd Saleem Lone, Murat Kemal Karacan, Yilmaz Tuncer and Hasan Es 1944
- 8 Solvable graphs of finite groups
by Parthajit Bhowal, Deiborlang Nongsiang and Rajat Kanti Nath 1955
- 9 Almost contraction mappings in cone b -metric spaces over Banach algebras
by Faruk Develi and Muttalip Özavşar 1965
- 10 One-sided duo property on nilpotents
by Chan Yong Hong, Hong Kee Kim, Nam Kyun Kim, Tai Keun Kwak and Yang Lee 1974
- 11 On the ranks of certain ideals of monotone contractions
by Leyla Bugay 1988
- 12 A note on small covers over cubes
by Ash Güçlükan İlhan 1997
- 13 A note on contact metric manifolds
by Sharief Deshmukh and Amira A. Ishan 2007

14	Coefficient inequalities for analytic functions associated with cardioid domains	2017
	<i>by Mohsan Raza, Saima Mushtaq, Sarfraz Nawaz Malik and Janusz Sokół</i>	
15	An integral formula for bi-slant submanifolds in complex space forms	2028
	<i>by Aliya Naaz Siddiqui and Cihan Özgür</i>	
16	Screen pseudo slant lightlike submanifolds of golden semi-Riemannian manifolds	2037
	<i>by Bilal Eftal Acet</i>	
17	On recursive hyperbolic functions in Fibonacci-Lucas sense	2046
	<i>by Ahmet Daşdemir, Tunca Deniz Şentürk and Zafer Ünal</i>	
18	Embedding the weighted space $Hv_0(G, E)$ of holomorphic functions into the sequence space $c_0(E)$	2063
	<i>by El Mustapha El Abbassi and Lahbib Oubbi</i>	
19	Rings with few units and the infinitude of primes	2071
	<i>by Hikmet Burak Özcan and Sedef Taşkın</i>	
20	Reversibility of skew Hurwitz series rings	2074
	<i>by Fatma Kaynarca and Muhammed Ali Yıldırım</i>	
21	A note on congruence properties of the generalized bi-periodic Horadam sequence	2084
	<i>by Elif Tan and Ho-Hon Leung</i>	
22	Some applications on q -analog of the generalized hyperharmonic numbers of order r , $H_n^r(\alpha)$	2094
	<i>by Sibel Koparal, Neşe Ömür and Cemile Duygu Çolak</i>	

Statistics

Research Articles

23	An estimation of Phi divergence and its application in testing normality	2104
	<i>by Mahsa Tavakoli, Hadi Alizadeh Noughabi and Gholam Reza Mohtashami Borzadaran</i>	
24	Bayesian estimation of Rayleigh distribution in the presence of outliers using progressive censoring	2119
	<i>by Farzana Noor, Aththasham Sajid, Maha Ghazal, Imranullah Khan, Mehwish Zaman and Imran Baig</i>	
25	A novel probabilistic distance measure for picture fuzzy sets with its application in classification problems	2134
	<i>by Abhishek Guleria and Rakesh Kumar Bajaj</i>	