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## ARTICLES

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Hassen Kthiri


Taiwanese J. Math. 27 (5), 833-845, (October, 2023) DOI: 10.11650/tjm/230601  Open Access

KEYWORDS: finite field, irreducible polynomials, Laurent series, 2-Pisot series, 11R04, 11R06, 11R09, 11A55, 11D45, 11D72, 11J61

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### Filter Regularization Method for Inverse Source Problem of the Rayleigh–Stokes Equation

Songshu Liu


Taiwanese J. Math. 27 (5), 847-861, (October, 2023) DOI: 10.11650/tjm/230302  Open Access

KEYWORDS: Rayleigh–Stokes equation, inverse source problem, ill-posed problem, filter regularization method, convergence estimates, 35R25, 35R30, 35R11, 47A52

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Somayeh Fakhri, Sayed Hodjatollah Momeni-Masuleh


Taiwanese J. Math. 27 (5), 863-888, (October, 2023) DOI: 10.11650/tjm/230402  Open Access

KEYWORDS: discontinuous Galerkin, modal basis, backward Euler, drug-eluting stent, drug release, 65M70, 65M20, 35K20, 35K57, 35Q92

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### Endpoint Sobolev Regularity of Multilinear Maximal Operators

Feng Liu, Xiao Zhang, Huiyun Zhang


Taiwanese J. Math. 27 (5), 889-912, (October, 2023) DOI: 10.11650/tjm/230703  Open Access

KEYWORDS: multilinear maximal operators, Sobolev Spaces, boundedness, continuity, 42B25, 46E35

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### A Non-Archimedean Second Main Theorem for Small Functions and Applications

Ta Thi Hoai An, Nguyen Viet Phuong

Taiwanese J. Math. 27 (5), 913-929, (October, 2023) DOI: 10.11650/tjm/230701  Open Access


KEYWORDS: Non-archimedean field, meromorphic functions, Nevanlinna theory, small functions, uniqueness, 30D35

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## Computing $h$ -functions of Some Planar Simply Connected Two-dimensional Regions

Arunmaran Mahenthiram

Taiwanese J. Math. 27 (5), 931-952, (October, 2023) DOI: 10.11650/tjm/230704  Open Access


KEYWORDS:  $h$ -functions, harmonic measure, conformal map, asymptotics, 30C20, 30C85

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## Rotational $K^\alpha$ -translators in Minkowski Space

Muhittin Evren Aydin, Rafael López

Taiwanese J. Math. 27 (5), 953-969, (October, 2023) DOI: 10.11650/tjm/230602  Open Access


KEYWORDS: Minkowski space,  $K^\alpha$ -translator, surfaces of revolution, 53C42, 53A10, 35J96

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## Equal Lower-order Finite Elements of Least-squares Type in Biot Poroelasticity Modeling

Hsueh-Chen Lee, Hyesuk Lee

Taiwanese J. Math. 27 (5), 971-988, (October, 2023) DOI: 10.11650/tjm/230702  Open Access


KEYWORDS: least-squares method, time dependent weight, Cantilever bracket problem, Biot poroelasticity model, 65N30

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## Effects of B-D Functional Response and Protection Zone on a Predator-prey Model

Yu-Xia Wang, Shouwen Fan

Taiwanese J. Math. 27 (5), 989-1019, (October, 2023) DOI: 10.11650/tjm/230501  Open Access


KEYWORDS: predator-prey model, stationary patterns, bifurcation, spatial heterogeneity, 35J60, 35B32, 92D25

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## A Three-term Conjugate Gradient Method with a Random Parameter for Large-scale Unconstrained Optimization and its Application in Regression Model

Yueting Yang, Xue Zhang, Guoling Zhou, Mingyuan Cao

Taiwanese J. Math. 27 (5), 1021-1039, (October, 2023) DOI: 10.11650/tjm/230503  Open Access

KEYWORDS: random parameter, three-term conjugate gradient, global convergence, large-scale unconstrained optimization, regression model, 90C30, 65K05

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