

### ŞUAYİP YÜZBAŞI PROF.

Email : syuzbasi@akdeniz.edu.tr Other Email : suayipyuzbasi@gmail.com Office Phone : <u>+90 242 310 2383</u> Address : Akdeniz Üniversitesi Fen Fakültesi Matematik Bölümü Dumlupınar Bulvarı 07058 Kampus Antalya / TÜRKİYE International Researcher IDs ScholarID: Gua4nXIAAAJ ORCID: 0000-0002-5838-7063 Publons / Web Of Science ResearcherID: C-1220-2016 ScopusID: 41262826200 Yoksis Researcher ID: 146184



#### Education

Doctorate 2009 - 2012	Mugla Sitki Kocman University, Fen Bilimler Enstitüsü, Matematik, Turkey
Postgraduate 2006 - 2009	Mugla Sitki Kocman University, Institute Of Science, Matematik, Turkey
Undergraduate 2002 - 2005	Mugla Sitki Kocman University, Faculty Of Arts And Sciences, Matematik, Turkey

#### Dissertations

Doctorate, İkinci Mertebe Kısmi Diferansiyel Denklemlerin Nümerik Çözümleri için Bessel Sıralama (Collocation) Metodu, Mugla Sitki Kocman University, Fen Bilimleri Enstitüsü, Matematik, 2012 Postgraduate, Lineer Diferansiyel, İntegral ve İntegro-Diferansiyel Denklemlerin Bessel Polinom Çözümleri, Mugla Sitki Kocman University, Fen Bilimleri Enstitüsü, Matematik, 2009

#### Academic Titles / Tasks

Professor	Aldaniz University Eaculty of Science Department of Methematics
2022 - Continues	Akdeniz University, Faculty of Science, Department of Mathematics

Associate Professor 2015 - 2022

Assistant Professor 2013 - 2015	Akdeniz University, Faculty of Science, Department of Mathematics
Research Assistant 2007 - 2012	Muğla Üniversitesi, Fen Fakültesi, Matematik

#### Awards

1. Yüzbaşı Ş., 2020 SCIENTIST OF THE YEAR AWARD-THE YOUNG SCIENTIST AWARD, Bilim Kahramanları Derneği, October 2021

#### Jury Memberships

Post Graduate, Tez Savunma, Akdeniz Üniversitesi, February, 2021 Post Graduate, Tez Savunma, Akdeniz Üniversitesi, February, 2021 Doctorate, Tez Savunma Jürisi, Akdeniz Üniversitesi, June, 2018 Post Graduate, Tez Savunma Jürisi, Akdeniz Üniversitesi, June, 2018 Academic Staff Examination, Öğretim Görevlisi Alımı Jüri Üyeliği, Akdeniz Üniversitesi, Öğretim Görevlisi Alımı Jüri Üyeliği, November, 2017 Post Graduate, Tez Savunma Jürisi, Akdeniz Üniversitesi, June, 2017 Post Graduate, Tez Savunma Jürisi, Akdeniz Üniversitesi, October, 2013

#### Published journal articles indexed by SCI, SSCI, and AHCI

1. An approaching method based on integral for linear neutral delay differential equations by using Hermite polynomials

Yüzbaşı Ş., Karaağaçlı Ö.

International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, vol.37, no.4, 2024 (SCI-Expanded)

2. Fractional Bell collocation method for solving linear fractional integro-differential equations YÜZBAŞI Ş.

Mathematical Sciences, vol.18, no.1, pp.29-40, 2024 (SCI-Expanded)

- A new Chelyshkov matrix method to solve linear and nonlinear fractional delay differential equations with error analysis Izadi M., YÜZBAŞI Ş., Adel W. Mathematical Sciences, vol.17, no.3, pp.267-284, 2023 (SCI-Expanded)
- Approximating solutions to fractional-order Bagley-Torvik equation via generalized Bessel polynomial on large domains Izadi M., YÜZBAŞI Ş., Cattani C. RICERCHE DI MATEMATICA, vol.72, no.1, pp.235-261, 2023 (SCI-Expanded)
- 5. Numerical solutions of the Bagley-Torvik equation by using generalized functions with fractional powers of Laguerre polynomials

Yüzbaşl Ş., Ylldlrlm G.

International Journal of Nonlinear Sciences and Numerical Simulation, vol.24, no.3, pp.1003-1021, 2023 (SCI-Expanded)

6. A Numerical Investigation Based on Exponential Collocation Method for Nonlinear SITR Model of COVID-19

Aslefallah M., Yüzbaşı Ş., Abbasbandy S.

CMES - COMPUTER MODELING IN ENGINEERING AND SCIENCES, vol.136, pp.1687-1706, 2023 (SCI-Expanded)

 A Pell-Lucas Collocation Approach for an SIR Model on the Spread of the Novel Coronavirus (SARS CoV-2) Pandemic: The Case of Turkey Yüzbaşı Ş., Yıldırım G.

MATHEMATICS, vol.11, no.3, pp.697-719, 2023 (SCI-Expanded)

8. Pell-Lucas collocation method for solving a class of second order nonlinear differential equations with variable delays YÜZBAŞI Ş., YILDIRIM G.

TURKISH JOURNAL OF MATHEMATICS, vol.47, no.1, pp.37-55, 2023 (SCI-Expanded)

9. A numerical approach to solve hyperbolic telegraph equations via Pell–Lucas polynomials YÜZBAŞI Ş., YILDIRIM G.

Journal of Taibah University for Science, vol.17, no.1, 2023 (SCI-Expanded)

10. A Taylor-Chebyshev approximation technique to solve the 1D and 2D nonlinear Burgers equations Izadi M., Yüzbaşı Ş., Baleanu D.

MATHEMATICAL SCIENCES, vol.16, pp.459-471, 2022 (SCI-Expanded)

 Bessel-quasilinearization technique to solve the fractional-order HIV-1 infection of CD4+ T-cells considering the impact of antiviral drug treatment YÜZBAŞI Ş., Izadi M.

Applied Mathematics and Computation, vol.431, 2022 (SCI-Expanded)

12. Existence and numerical analysis using Haar wavelet for fourth-order multi-term fractional differential equations

Amin R., Shah K., Mlaiki N., YÜZBAŞI Ş., Abdeljawad T., Hussain A.

Computational and Applied Mathematics, vol.41, no.7, 2022 (SCI-Expanded)

13. Accurate and efficient matrix techniques for solving the fractional Lotka–Volterra population model Izadi M., YÜZBAŞI Ş., Adel W.

Physica A: Statistical Mechanics and its Applications, vol.600, 2022 (SCI-Expanded)

14. A collocation method to solve the parabolic-type partial integro-differential equations via Pell-Lucas polynomials

YÜZBAŞI Ş., YILDIRIM G.

Applied Mathematics and Computation, vol.421, 2022 (SCI-Expanded)

15. A new Bell function approach to solve linear fractional differential equations YÜZBAŞI Ş.

APPLIED NUMERICAL MATHEMATICS, vol.174, pp.221-235, 2022 (SCI-Expanded)

### 16. Efficient Numerical Scheme for the Solution of HIV Infection CD4(+) T-Cells Using Haar Wavelet Technique

Amin R., YÜZBAŞI Ş., Nazir S.

CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES, vol.130, 2022 (SCI-Expanded)

# 17. A Galerkin-type approach to solve systems of linear Volterra-Fredholm integro-differential equations

KARAÇAYIR M., YÜZBAŞI Ş.

Turkish Journal of Mathematics, vol.46, no.8, pp.3121-3138, 2022 (SCI-Expanded)

### 18. A Higher-Order Galerkin Time Discretization and Numerical Comparisons for Two Models of HIV Infection

Attaullah A., YÜZBAŞI Ş., Alyobi S., Yassen M. F., Weera W.

Computational and Mathematical Methods in Medicine, vol.2022, 2022 (SCI-Expanded)

19. A hybrid approximation scheme for 1-D singularly perturbed parabolic convection-diffusion problems

Izadi M., YÜZBAŞI Ş.

Mathematical Communications, vol.27, no.1, pp.47-62, 2022 (SCI-Expanded)

20. A Pell-Lucas approximation to solve the Abel equation of the second kind YÜZBAŞI Ş., YILDIRIM G.

Ricerche di Matematica, 2022 (SCI-Expanded)

21. A matrix-collocation method for solutions of singularly perturbed differential equations via Euler polynomials

ELMACI D., YÜZBAŞI Ş., Savaşanerİl N. B.

Turkish Journal of Mathematics, vol.46, no.8, pp.3260-3275, 2022 (SCI-Expanded)

### 22. An operational matrix method to solve the Lotka-Volterra predator-prey models with discrete delays

YÜZBAŞI Ş.

CHAOS SOLITONS & FRACTALS, vol.153, 2021 (SCI-Expanded)

23. Two Novel Bessel Matrix Techniques to Solve the Squeezing Flow Problem between Infinite Parallel Plates

Izadi M., YÜZBAŞI Ş., Adel W. COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS, vol.61, no.12, pp.2034-2053, 2021 (SCI-Expanded)

24. Application of Vieta-Lucas Series to Solve a Class of Multi-Pantograph Delay Differential Equations with Singularity

Izadi M., Yuezbasi Ş., Ansari K. J.

SYMMETRY-BASEL, vol.13, no.12, 2021 (SCI-Expanded)

25. Dynamical behaviour of HIV Infection with the influence of variable source term through Galerkin method

Ullah A., Jan R., Yüzbaşı Ş. CHAOS SOLITONS & FRACTALS, vol.152, 2021 (SCI-Expanded)

### 26. Spectral solutions of fractional differential equations modelling combined drug therapy for HIV infection

Thirumalai S., Seshadri R., Yüzbaşı Ş.

CHAOS SOLITONS & FRACTALS, vol.151, 2021 (SCI-Expanded)

27. Approximating Solutions of Non-Linear Troesch's Problem via an Efficient Quasi-Linearization Bessel Approach

Izadi M., YÜZBAŞI Ş., Noeiaghdam S.

MATHEMATICS, vol.9, no.16, 2021 (SCI-Expanded)

# 28. On the solution of the Human Immunodeficiency Virus (HIV) infection model using spectral collocation method

Thirumalai S., Seshadri R., Yuzbasii Ş.

INTERNATIONAL JOURNAL OF BIOMATHEMATICS, vol.14, no.2, 2021 (SCI-Expanded)

# 29. Legendre Collocation Method to Solve the Riccati Equations with Functional Arguments YÜZBAŞI Ş., YILDIRIM G.

INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, vol.17, no.10, 2020 (SCI-Expanded)

# 30. An Optimization Method Based on the Generalized Polynomials for a Model of HIV Infection of CD4(+) T Cells

HASSANI H., Mehrabi S., NARAGHIRAD E., NAGHMACHI M., YÜZBAŞI Ş.

IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.44, no.2, pp.407-416, 2020 (SCI-Expanded)

31. An approximation technique for solutions of singularly perturbed one-dimensional convectiondiffusion problem

YÜZBAŞI Ş., KARAÇAYIR M.

International Journal of Numerical Modelling: Electronic Networks,INTERNATIONAL JOURNAL OF NUMERICAL MODELLING-ELECTRONIC NETWORKS DEVICES AND FIELDS, vol.33, no.1, 2020 (SCI-Expanded)

- 32. Introduction to the Special Issue on Numerical Methods for Differential and Integral Equations YÜZBAŞI Ş., Al-Khaled K., BAYKUŞ SAVAŞANERİL N., Kumar D. CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES, vol.123, no.3, pp.913-915, 2020 (SCI-Expanded)
- 33. An approximation technique for solutions of singularly perturbed one-dimensional convectiondiffusion problem

YÜZBAŞI Ş., KARAÇAYIR M.

INTERNATIONAL JOURNAL OF NUMERICAL MODELLING-ELECTRONIC NETWORKS DEVICES AND FIELDS, vol.33, no.1, 2020 (SCI-Expanded)

34. An operational method for solutions of Riccati type differential equations with functional arguments YÜZBAŞI Ş.

JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, vol.14, no.1, pp.661-669, 2020 (SCI-Expanded)

35. A Galerkin-Type Fractional Approach for Solutions of Bagley-Torvik Equations YÜZBAŞI Ş., KARAÇAYIR M.

CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES, vol.123, no.3, pp.941-956, 2020 (SCI-Expanded)

36. Pell-Lucas collocation method for numerical solutions of two population models and residual correction

YÜZBAŞI Ş., YILDIRIM G.

JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, vol.14, no.1, pp.1262-1278, 2020 (SCI-Expanded)

37. A Galerkin-like method for solving linear functional differential equations under initial conditions YÜZBAŞI Ş., KARAÇAYIR M.

TURKISH JOURNAL OF MATHEMATICS, vol.44, no.1, pp.85-97, 2020 (SCI-Expanded)

38. Pell-Lucas collocation method to solve high-order linear Fredholm-Volterra integro-differential equations and residual correction
 YÜZBAŞI Ş., YILDIRIM G.
 TURKISU JOURNAL OF MATHEMATICS, vol 44, no 4, nn 1065, 1001, 2020 (SCI Euronded).

TURKISH JOURNAL OF MATHEMATICS, vol.44, no.4, pp.1065-1091, 2020 (SCI-Expanded)

- 39. Population dynamics between a prey and a predator using spectral collocation method Thirumalai S., SESHADRI R., YÜZBAŞI Ş. INTERNATIONAL JOURNAL OF BIOMATHEMATICS, vol.12, no.5, 2019 (SCI-Expanded)
- 40. A collocation approach for solving two-dimensional second-order linear hyperbolic equations YÜZBAŞI Ş.

APPLIED MATHEMATICS AND COMPUTATION, vol.338, pp.101-114, 2018 (SCI-Expanded)

41. **A Galerkin-Type Method for Solving a Delayed Model on HIV Infection of CD4(+) T-cells** YÜZBAŞI Ş., KARAÇAYIR M. IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE. vol.42. no.A3. np.1087-10

IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.42, no.A3, pp.1087-1095, 2018 (SCI-Expanded)

42. A Galerkin-Type Method to Solve One-Dimensional Telegraph Equation Using Collocation Points in Initial and Boundary Conditions YÜZBAŞI Ş., KARAÇAYIR M.

INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, vol.15, no.5, 2018 (SCI-Expanded)

### 43. A Numerical Approach for Solving High-Order Linear Delay Volterra Integro-Differential Equations YÜZBAŞI Ş., KARAÇAYIR M.

INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, vol.15, no.5, 2018 (SCI-Expanded)

44. A numerical method for solutions of Lotka-Volterra predator-prey model with time-delay YÜZBAŞI Ş., KARAÇAYIR M.

INTERNATIONAL JOURNAL OF BIOMATHEMATICS, vol.11, no.2, 2018 (SCI-Expanded)

45. A Galerkin-Like Approach to Solve Multi-Pantograph Type Delay Differential Equations YÜZBAŞI Ş., KARAÇAYIR M.

FILOMAT, vol.32, no.2, pp.409-422, 2018 (SCI-Expanded)

46. A Taylor operation method for solutions of generalized pantograph type delay differential equations

YÜZBAŞI Ş., Ismailov N. TURKISH JOURNAL OF MATHEMATICS, vol.42, no.2, pp.395-406, 2018 (SCI-Expanded)

47. An operational matrix method for solving linear Fredholm Volterra integro-differential equations YÜZBAŞI Ş., Ismailov N.

TURKISH JOURNAL OF MATHEMATICS, vol.42, no.1, pp.243-256, 2018 (SCI-Expanded)

- 48. An exponential method to solve linear Fredholm-Volterra integro-differential equations and residual improvement
   YÜZBAŞI Ş.
   TURKISH JOURNAL OF MATHEMATICS, vol.42, no.5, pp.2546-2562, 2018 (SCI-Expanded)
- 49. A Galerkin-like scheme to solve two-dimensional telegraph equation using collocation points in initial and boundary conditions
   YÜZBAŞI Ş., KARAÇAYIR M.
   COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.74, no.12, pp.3242-3249, 2017 (SCI-Expanded)
- 50. A numerical scheme for solutions of a class of nonlinear differential equations YÜZBAŞI Ş.
   JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, vol.11, no.6, pp.1165-1181, 2017 (SCI-Expanded)

#### 51. A numerical method for the solutions of the HIV infection model of CD4(+) T-cells YÜZBAŞI Ş., Ismailov N. INTERNATIONAL JOURNAL OF BIOMATHEMATICS, vol.10, no.7, 2017 (SCI-Expanded)

52. A shifted Legendre method for solving a population model and delay linear Volterra integrodifferential equations YÜZBAŞI Ş.

INTERNATIONAL JOURNAL OF BIOMATHEMATICS, vol.10, no.7, 2017 (SCI-Expanded)

# 53. Application of homotopy perturbation method to solve two models of delay differential equation systems

YÜZBAŞI Ş., KARAÇAYIR M. INTERNATIONAL JOURNAL OF BIOMATHEMATICS, vol.10, no.6, 2017 (SCI-Expanded)

### 54. A Laguerre Approach for the Solutions of Singular Perturbated Differential Equations YÜZBAŞI Ş.

INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, vol.14, no.4, 2017 (SCI-Expanded)

55. An exponential Galerkin method for solutions of HIV infection model of CD4+ T-cells YÜZBAŞI Ş., KARAÇAYIR M.

COMPUTATIONAL BIOLOGY AND CHEMISTRY, vol.67, pp.205-212, 2017 (SCI-Expanded)

56. A Galerkin-like approach to solve continuous population models for single and interacting species YÜZBAŞI Ş., KARAÇAYIR M.

KUWAIT JOURNAL OF SCIENCE, vol.44, no.2, pp.9-26, 2017 (SCI-Expanded)

57. Shifted Legendre method with residual error estimation for delay linear Fredholm integrodifferential equations YÜZBAŞI Ş.

JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, vol.11, no.2, pp.344-352, 2017 (SCI-Expanded)

### 58. A Numerical Method for Solving Second-Order Linear Partial Differential Equations Under Dirichlet, Neumann and Robin Boundary Conditions YÜZBAŞI Ş. INTERNATIONAL IOURNAL OF COMPUTATIONAL METHODS, vol 14, no 2, 2017 (SCI-Expanded)

INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, vol.14, no.2, 2017 (SCI-Expanded)

# 59. Numerical solutions of hyperbolic telegraph equation by using the Bessel functions of first kind and residual correction

YÜZBAŞI Ş.

APPLIED MATHEMATICS AND COMPUTATION, vol.287, pp.83-93, 2016 (SCI-Expanded)

60. An exponential collocation method for the solutions of the HIV infection model of CD4(+)T cells YÜZBAŞI Ş.

INTERNATIONAL JOURNAL OF BIOMATHEMATICS, vol.9, no.3, 2016 (SCI-Expanded)

61. Improved Bessel collocation method for linear Volterra integro-differential equations with piecewise intervals and application of a Volterra population model YÜZBAŞI Ş. APPLIED MATHEMATICAL MODELLING, vol.40, no.9-10, pp.5349-5363, 2016 (SCI-Expanded) 62. A Galerkin-like approach to solve high-order integro-differential equations with weakly singular kernel YÜZBAŞI Ş., KARAÇAYIR M. KUWAIT JOURNAL OF SCIENCE, vol.43, no.2, pp.106-120, 2016 (SCI-Expanded) 63. An exponential approach for the system of nonlinear delay integro-differential equations describing biological species living together YÜZBAŞI Ş., SEZER M. NEURAL COMPUTING & APPLICATIONS, vol.27, no.3, pp.769-779, 2016 (SCI-Expanded) 64. A collocation method for numerical solutions of fractional-order logistic population model YÜZBAŞI Ş INTERNATIONAL JOURNAL OF BIOMATHEMATICS, vol.9, no.2, 2016 (SCI-Expanded) 65. A collocation method based on Bernstein polynomials to solve nonlinear Fredholm-Volterra integrodifferential equations YÜZBAŞI Ş. APPLIED MATHEMATICS AND COMPUTATION, vol.273, pp.142-154, 2016 (SCI-Expanded) 66. A numerical method for solving systems of higher order linear functional differential equations YÜZBAŞI Ş., Gok E., SEZER M. OPEN PHYSICS, vol.14, no.1, pp.15-25, 2016 (SCI-Expanded) 67. Shifted Legendre approximation with the residual correction to solve pantograph-delay type differential equations YÜZBAŞI Ş., SEZER M. APPLIED MATHEMATICAL MODELLING, vol.39, no.21, pp.6529-6542, 2015 (SCI-Expanded) 68. A collocation method based on the Bessel functions of the first kind for singular perturbated differential equations and residual correction Yuzbasi S. MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.38, no.14, pp.3033-3042, 2015 (SCI-Expanded) 69. Numerical solutions of system of linear Fredholm-Volterra integro-differential equations by the Bessel collocation method and error estimation Yuzbasi S. APPLIED MATHEMATICS AND COMPUTATION, vol.250, pp.320-338, 2015 (SCI-Expanded) 70. Laguerre approach for solving pantograph-type Volterra integro-differential equations Yuzbasi S. APPLIED MATHEMATICS AND COMPUTATION, vol.232, pp.1183-1199, 2014 (SCI-Expanded) 71. Laguerre matrix method with the residual error estimation for solutions of a class of delay differential equations YÜZBAŞI Ş., Gok E., Sezer M. MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.37, no.4, pp.453-463, 2014 (SCI-Expanded) 72. An exponential approximation for solutions of generalized pantograph-delay differential equations YÜZBAŞI Ş., Sezer M. APPLIED MATHEMATICAL MODELLING, vol.37, no.22, pp.9160-9173, 2013 (SCI-Expanded) 73. Exponential Collocation Method for Solutions of Singularly Perturbed Delay Differential Equations YÜZBAŞI Ş., Sezer M. ABSTRACT AND APPLIED ANALYSIS, vol.2013, 2013 (SCI-Expanded) 74. Numerical solutions of singularly perturbed one-dimensional parabolic convection-diffusion problems by the Bessel collocation method YÜZBAŞI Ş., Sahin N. APPLIED MATHEMATICS AND COMPUTATION, vol.220, pp.305-315, 2013 (SCI-Expanded)

75. A collocation method to find solutions of linear complex differential equations in circular domains YÜZBAŞI Ş., Sezer M. APPLIED MATHEMATICS AND COMPUTATION, vol.219, no.22, pp.10610-10626, 2013 (SCI-Expanded) 76. An improved Bessel collocation method with a residual error function to solve a class of Lane-**Emden differential equations** YÜZBAŞI Ş., Sezer M. MATHEMATICAL AND COMPUTER MODELLING, vol.57, no.5-6, pp.1298-1311, 2013 (SCI-Expanded) 77. A numerical approximation for Volterra's population growth model with fractional order YÜZBAŞI Ş. APPLIED MATHEMATICAL MODELLING, vol.37, no.5, pp.3216-3227, 2013 (SCI-Expanded) 78. An exponential matrix method for solving systems of linear differential equations YÜZBAŞI Ş., Sezer A. MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.36, no.3, pp.336-348, 2013 (SCI-Expanded) 79. Numerical solutions of fractional Riccati type differential equations by means of the Bernstein polynomials Yuzbasi S. APPLIED MATHEMATICS AND COMPUTATION, vol.219, no.11, pp.6328-6343, 2013 (SCI-Expanded) 80. Numerical solutions of integro-differential equations and application of a population model with an improved Legendre method YÜZBAŞI Ş., Sezer M., Kemanci B. APPLIED MATHEMATICAL MODELLING, vol.37, no.4, pp.2086-2101, 2013 (SCI-Expanded) 81. Numerical solution of the Bagley-Torvik equation by the Bessel collocation method YÜZBAŞI Ş. MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.36, no.3, pp.300-312, 2013 (SCI-Expanded) 82. A numerical approach to solve the model for HIV infection of CD4(+)T cells YÜZBAŞI Ş. APPLIED MATHEMATICAL MODELLING, vol.36, no.12, pp.5876-5890, 2012 (SCI-Expanded) 83. A numerical approximation based on the Bessel functions of first kind for solutions of Riccati type differential-difference equations YÜZBAŞI Ş. COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.64, no.6, pp.1691-1705, 2012 (SCI-Expanded) 84. Bessel collocation approach for solving continuous population models for single and interacting species YÜZBAŞI Ş. APPLIED MATHEMATICAL MODELLING, vol.36, no.8, pp.3787-3802, 2012 (SCI-Expanded) 85. An efficient algorithm for solving multi-pantograph equation systems YÜZBAŞI Ş. COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.64, no.4, pp.589-603, 2012 (SCI-Expanded) 86. A Bessel collocation method for numerical solution of generalized pantograph equations YÜZBAŞI Ş., Sahin N., Sezer M. NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.28, no.4, pp.1105-1123, 2012 (SCI-Expanded) 87. A collocation approach for solving linear complex differential equations in rectangular domains YÜZBAŞI Ş., Sahin N., Sezer M. MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.35, no.10, pp.1126-1139, 2012 (SCI-Expanded) 88. On the solutions of a system of linear retarded and advanced differential equations by the Bessel collocation approximation YÜZBAŞI Ş. COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.63, no.10, pp.1442-1455, 2012 (SCI-Expanded) 89. A numerical scheme for solutions of the Chen system YÜZBAŞI Ş.

MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.35, no.8, pp.885-893, 2012 (SCI-Expanded)

90. A numerical method to solve a class of linear integro-differential equations with weakly singular kernel

YÜZBAŞI Ş., Sezer M.

MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.35, no.6, pp.621-632, 2012 (SCI-Expanded)

91. On the solutions of a class of nonlinear ordinary differential equations by the Bessel polynomials YÜZBAŞI Ş., Şahin N.

JOURNAL OF NUMERICAL MATHEMATICS, vol.20, no.1, pp.55-80, 2012 (SCI-Expanded)

92. A collocation approach for solving high-order linear Fredholm-Volterra integro-differential equations

YÜZBAŞI Ş., Sahin N., YILDIRIM A.

MATHEMATICAL AND COMPUTER MODELLING, vol.55, no.3-4, pp.547-563, 2012 (SCI-Expanded)

93. A collocation approach to solving the model of pollution for a system of lakes YÜZBAŞI Ş., Sahin N., Sezer M.

MATHEMATICAL AND COMPUTER MODELLING, vol.55, no.3-4, pp.330-341, 2012 (SCI-Expanded)

### 94. A collocation approach to solve the Riccati-type differential equation systems YÜZBAŞI Ş.

INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, vol.89, no.16, pp.2180-2197, 2012 (SCI-Expanded)

95. A numerical approach for solving a class of the nonlinear Lane-Emden type equations arising in astrophysics YÜZBAŞI Ş.

MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.34, no.18, pp.2218-2230, 2011 (SCI-Expanded)

96. A collocation approach for solving a class of complex differential equations in elliptic domains YÜZBAŞI Ş., Sahin N., Gulsu M.

JOURNAL OF NUMERICAL MATHEMATICS, vol.19, no.3, pp.225-246, 2011 (SCI-Expanded)

97. A numerical approach for solving the high-order linear singular differential-difference equations Yuezbasi S.

COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.62, no.5, pp.2289-2303, 2011 (SCI-Expanded)

98. Bessel polynomial solutions of high-order linear Volterra integro-differential equations YÜZBAŞI Ş., ŞAHİN N., Sezer M.

COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.62, no.4, pp.1940-1956, 2011 (SCI-Expanded)

99. Numerical Solutions of Systems of High-Order Linear Differential-Difference Equations with Bessel Polynomial Bases

YÜZBAŞI Ş., Sahin N., YILDIRIM A.

ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, vol.66, no.8-9, pp.519-532, 2011 (SCI-Expanded)

100. A collocation approach for solving systems of linear Volterra integral equations with variable coefficients

ŞAHİN N., YÜZBAŞI Ş., Gulsu M.

COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.62, no.2, pp.755-769, 2011 (SCI-Expanded)

# 101. Numerical solutions of systems of linear Fredholm integro-differential equations with Bessel polynomial bases

YÜZBAŞI Ş., ŞAHİN N., Sezer M.

COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.61, no.10, pp.3079-3096, 2011 (SCI-Expanded)

### 102. A Bessel polynomial approach for solving general linear Fredholm integro-differential-difference equations

Sahin N., YÜZBAŞI Ş., Sezer M. INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, vol.88, no.14, pp.3093-3111, 2011 (SCI-Expanded)

#### Articles Published in Other Journals

1. Solving high-order nonlinear differential equations using operational matrix based on exponential collocation method Aslefallah M., Abbasbandy S., YÜZBAŞI Ş. Sigma Journal of Engineering and Natural Sciences, vol.41, no.4, pp.689-698, 2023 (ESCI) 2. Spectral collocation method based on special functions for solving nonlinear high-order pantograph equations Thirumalai S., Seshadri R., Yüzbaşı Ş. COMPUTATIONAL METHODS FOR DIFFERENTIAL EQUATIONS, vol.3, no.1, 2023 (ESCI) 3. Pell-Lucas Collocation Method to Solve Second-Order Nonlinear Lane-Emden Type Pantograph **Differential Equations** YÜZBAŞI Ş., YILDIRIM G. Fundamentals of Contemporary Mathematical Sciences, vol.3, 2022 (Peer-Reviewed Journal) 4. A Computational Algorithm for Solution of Population Models for Single and Interacting Species Amin R., Yüzbaşı Ş., Syam M. International Journal of Applied and Computational Mathematics, vol.7, no.186, 2021 (Scopus) 5. A Laguerre approach for solving of the systems of linear differential equations and residual improvement YÜZBAŞI Ş., YILDIRIM G. COMPUTATIONAL METHODS FOR DIFFERENTIAL EQUATIONS, vol.9, no.2, pp.553-576, 2021 (ESCI) 6. A GALERKIN-LIKE SCHEME TO DETERMINE CURVES OF CONSTANT BREADTH IN EUCLIDEAN 3-SPACE Yuzbasi S., Karacayir M. TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.11, no.3, pp.646-658, 2021 (ESCI) 7. ON SOLUTIONS OF LINEAR FUNCTIONAL INTEGRAL AND INTEGRO-DIFFERENTIAL EQUATIONS VIA LAGRANGE POLYNOMIALS YÜZBAŞI Ş., SEZER M. Journal of Science and Arts, vol.21, 2021 (ESCI) 8. A GALERKIN-TYPE METHOD FOR SOLUTIONS OF PANTOGRAPH-TYPE VOLTERRA-FREDHOLM INTEGRO-DIFFERENTIAL EQUATIONS WITH FUNCTIONAL UPPER LIMIT YÜZBAŞI Ş., KARAÇAYIR M. SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.38, no.2, pp.995-1005, 2020 (ESCI) 9. Algorithm for the Numerical Solutions of Volterra Population Growth Model with Fractional Order via Haar Wavelet Amin R., YÜZBAŞI Ş., Gao L., Asif M., Khan I. Contemporary Mathematics, vol.1, no.2, pp.54-111, 2020 (Peer-Reviewed Journal) 10. A MUNTZ-LEGENDRE APPROACH TO OBTAIN SOLUTIONS OF SINGULAR PERTURBED PROBLEMS YÜZBAŞI Ş., Gök E., Sezer M. JOURNAL OF SCIENCE AND ARTS, no.3, pp.537-544, 2020 (ESCI) 11. HERMITE POLYNOMIAL APPROACH FOR SOLVING SINGULAR PERTURBATED DELAY DIFFERENTIAL **EQUATIONS** YÜZBAŞI Ş., Savasaneril N. B. JOURNAL OF SCIENCE AND ARTS, no.4, pp.845-854, 2020 (ESCI) 12. Bessel collocation approach for solving one-dimensional wave equation with Dirichlet, Neumann boundary and integral conditions YÜZBAŞI Ş. Research and Communications in Mathematics and Mathematical Sciences, vol.11, no.1, pp.63-87, 2019 (Peer-

Reviewed Journal)

13. Laguerre Collocation Method for Solutions of The Systems of First Order Linear Differential Equations

YÜZBAŞI Ş., Yıldırım G.

Turkish Journal of Mathematics and Computer Science, vol.10, pp.222-241, 2018 (Peer-Reviewed Journal)

- 14. A numerical scheme to solve boundary value problems involving singular perturbation YÜZBAŞI Ş., KARAÇAYIR M.
  - EUROPEAN JOURNAL OF COMPUTATIONAL MECHANICS, vol.27, no.2, pp.109-122, 2018 (ESCI)
- 15. Bessel collocation approach for approximate solutions of Hantavirus infection model YÜZBAŞI Ş.
  - New Trends in Mathematical Sciences, vol.5, no.4, pp.89-96, 2017 (Peer-Reviewed Journal)
- 16. Differential transform method to solve two-dimensional Volterra integral equations with proportional delays
  - YÜZBAŞI Ş., İsmailov N.
  - New Trends in Mathematical Sciences, vol.5, no.4, pp.65-71, 2017 (Peer-Reviewed Journal)
- 17. A Galerkin-like scheme to solve Riccati equations encountered in quantum physics YÜZBAŞI Ş., KARAÇAYIR M.

Journal of Physics: Conference Series, vol.766, 2016 (Scopus)

- 18. Müntz-Legendre matrix method for the approximate solution of differential-difference equations with constant coefficient
  - Çevikel S., YÜZBAŞI Ş., Gök E.

Karaelmas Science and Engineering Journal, vol.5, no.1, pp.45-51, 2015 (Peer-Reviewed Journal)

19. Residual correction of the Hermite polynomial solutions of the generalized pantograph equations YÜZBAŞI Ş., Gök E., Sezer M.

New Trends in Mathematical Sciences, vol.3, no.2, pp.118-125, 2015 (Peer-Reviewed Journal)

20. Approximate solutions of the hyperchaotic Rössler system by using the Bessel collocation scheme YÜZBAŞI Ş.

New Trends in Mathematical Sciences, vol.3, no.2, pp.70-78, 2015 (Peer-Reviewed Journal)

# 21. Müntz-Legendre matrix method to solve the delay fredholm integro-differential equations with constant coefficients

YÜZBAŞI Ş., Gök E., Sezer M.

New Trends in Mathematical Sciences, vol.3, no.2, pp.159-167, 2015 (Peer-Reviewed Journal)

- 22. Solving Systems of Volterra Integral and Integrodifferential Equations with Proportional Delays by Differential Transformation Method
  - YÜZBAŞI Ş., Ismailov N.

Journal of Mathematics, vol.2014, 2014 (Scopus)

# 23. Müntz-Legendre polynomial solutions of linear delay Fredholm integro-differential equations and residual corrections

YÜZBAŞI Ş., Gök E., Sezer M.

MATHEMATİCAL AND COMPUTATİONAL APPLİCATİONS, vol.18, no.3, pp.476-485, 2013 (Peer-Reviewed Journal)

24. An exponential matrix method for numerical solutions of Hantavirus infection model YÜZBAŞI Ş., Sezer M.

APPLICATIONS AND APPLIED MATHEMATICS-AN INTERNATIONAL JOURNAL, vol.8, no.1, pp.99-115, 2013 (ESCI)

25. A Chebyshev Method for a class of high-order linear Fredholm integro-differential equations Yüksel G., YÜZBAŞI Ş., Sezer M.

Journal Advanced Research in Applied Mathematics, vol.4, no.1, pp.49-67, 2012 (Peer-Reviewed Journal)

### 26. Numerical solution of a class of Lane-Emden type differential-difference equations YÜZBAŞI Ş., Şahin N.

- Journal of Advanced Research in Scientific Computing, vol.3, no.3, pp.14-29, 2011 (Peer-Reviewed Journal)
- 27. A numerical approach for solving linear differential equation systems YÜZBAŞI Ş., Şahin N., Sezer M.

Journal Advanced Research in Differential Equations, vol.3, no.3, pp.8-32, 2011 (Peer-Reviewed Journal)

28. Bessel collocation method for solving high-order linear Fredholm integro-differential-difference equations

YÜZBAŞI Ş., Şahin N., Sezer M.

Journal Advanced Research in Differential Equations, vol.3, no.2, pp.1-23, 2011 (Peer-Reviewed Journal)

29. Bessel matrix method for solving high-order linear Fredholm integro-differential equations YÜZBAŞI Ş., Şahin N., Sezer M.

Journal Advanced Research in Applied Mathematics, vol.3, no.2, pp.23-47, 2011 (Peer-Reviewed Journal)

- 30. A collocation approach to solve a class of Lane-Emden type equations
   YÜZBAŞI Ş., Sezer M.
   Journal Advanced Research in Applied Mathematics, vol.3, no.2, pp.58-73, 2011 (Peer-Reviewed Journal)
- 31. A Bessel polynomial approach for solving linear neutral delay differential equations with variable coefficients

YÜZBAŞI Ş., Şahin N., Sezer M. Journal Advanced Research in Differential Equations, vol.3, no.1, pp.81-101, 2011 (Peer-Reviewed Journal)

Papers Published in Refereed Scientific Meetings

- 1. An operational method based on the first type shifted Chebyshev polynomials for linear delay diferential equations with variable coefficients
  - Yüzbaşı Ş., Yıldırım G.

1st International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 10 - 13 May 2022, pp.2434-2438

- 2. An operational matrix method for approximate solutions of mass-spring system with two freedom degree
  - Yüzbaşı Ş., Yıldırım G.

1st International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 10 - 13 May 2022, pp.2439-2443

3. Applications of Pell-Lucas collocation method for Bratu-type problem with boundary conditions Yüzbaşı Ş., Yıldırım G.

1st International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 10 - 13 May 2022, pp.2426-2433

4. A NUMERICAL APPROACH TO LANE-EMDEN TYPE FUNCTIONAL DIFFERENTIAL EQUATIONS WITH THE HELP OF AN OPERATIONAL MATRIX METHOD

Yıldırım G., Yüzbaşı Ş.

13th International Conference of Strategic Research on Scientific Studies and Education (ICoSReSSE), Antalya, Turkey, 26 - 29 May 2021, pp.347-357

5. PELL-LUCAS COLLOCATION METHOD FOR THE APPROXIMATE SOLUTIONS OF THE SINGULAR TWO-POINT BOUNDARY VALUE PROBLEMS (BVPs)

Yüzbaşı Ş., Yıldırım G.

13th International Conference of Strategic Research on Scientific Studies and Education (ICoSReSSE), Antalya, Turkey, 26 - 29 May 2021, pp.358-368

- 6. APPROXIMATE SOLUTIONS OF SINGULAR PERTURBATED DELAY DIFFERENTIAL EQUATIONS WITH THE HELP OF THE LEGENDRE COLLOCATION METHOD
  - Yüzbaşı Ş., Yıldırım G.

2. INTERNATIONAL CONGRESS ON MATHEMATICS AND GEOMETRY, Ankara, Turkey, 20 May 2021, pp.24-36

7. APPROXIMATE SOLUTIONS OF THE NONLINEAR LANE-EMDEN DIFFERENTIAL EQUATIONS USING AN OPERATIONAL MATRIX METHOD

Yıldırım G., Yüzbaşı Ş.

2. INTERNATIONAL CONGRESS ON MATHEMATICS AND GEOMETRY, Ankara, Turkey, 20 May 2021, pp.37-47

8. AN OPERATIONAL MATRIX METHOD FOR THE APPROXIMATE SOLUTIONS OF THE VISCOUSLY DAMPED SINGLE DEGREE OF FREEDOM SYSTEM SUBJECTED TO HARMONIC EXCITATION Yüzbaşı Ş., Yıldırım G.

2. INTERNATIONAL CONGRESS ON MATHEMATICS AND GEOMETRY, Ankara, Turkey, 20 May 2021, pp.48-58 9. THE APPROXIMATE SOLUTIONS OF THE FREEDOM VIBRATION EQUATIONS OF THE MASS-SPRING SYSTEM WITH TWO FREEDOM DEGREE: PELL-LUCAS MATRIX METHOD Yıldırım G., Yüzbaşı Ş. 2. INTERNATIONAL CONGRESS ON MATHEMATICS AND GEOMETRY, Ankara, Turkey, 20 May 2021, pp.59-73 10. APPROXIMATE SOLUTIONS OF THE LANE-EMDEN TYPE DIFFERENTIAL-DIFFERENCE EQUATIONS BY **USING FERMAT POLYNOMIALS** Yüzbaşı Ş., Yıldırım G. 2. INTERNATIONAL CONGRESS ON MATHEMATICS AND GEOMETRY, Ankara, Turkey, 20 May 2021, pp.74-85 11. A COLLOCATION METHOD FOR THE APPROXIMATE SOLUTION OF LINEAR NEUTRAL DELAYED DIFFERENTIAL EQUATIONS WITH VARIABLE COEFFICIENT Yildirim G., Yüzbaşi Ş. AL-FARABI INTERNATIONAL CONGRESS ON APPLIED SCIENCES-II, Nakhchivan, Azerbaijan, 2 - 04 May 2021, pp 150-159 12. AN OPERATIONAL MATRIX METHOD FOR NUMERICAL SOLUTIONS OF SINGULARLY PERTURBATED **DIFFERENTIAL EQUATIONS** Yüzbaşi Ş., Yildirim G. AL-FARABI INTERNATIONAL CONGRESS ON APPLIED SCIENCES - II, Nakhchivan, Azerbaijan, 2 - 04 May 2021, pp.139-149 13. APPROXIMATE SOLUTIONS OF SINGULAR PERTURBATED DELAY DIFFERENTIAL EQUATIONS WITH THE HELP OF THE BERNSTEIN COLLOCATION METHOD Yüzbaşi Ş., Yildirim G. AL-FARABI INTERNATIONAL CONGRESS ON APPLIED SCIENCES-II, Nakhchivan, Azerbaijan, 2 - 04 May 2021, pp.160-169 14. NUMERICAL SOLUTIONS OF THE LINEAR LANE-EMDEN DIFFERENTIAL EQUATIONS BY USING THE **MORGAN-VOYCE FUNCTIONS AND RESIDUAL CORRECTIONS** YILDIRIM G., YÜZBASI S.

1.INTERNATIONAL CONGRESSON MATHEMATICS AND GEOMETRY, Ankara, Turkey, 09 December 2020, pp.17-31

15. AN OPERATIONAL MATRIX METHOD FOR THE SYSTEMS OF HIGHER-ORDER LINEAR FREDHOLM INTEGRO-DIFFERENTIAL EQUATIONS BY USING THE PELLLUCAS FUNCTIONS YÜZBAŞI Ş., YILDIRIM G.

1.INTERNATIONAL CONGRESSON MATHEMATICS AND GEOMETRY, Ankara, Turkey, 09 December 2020, pp.32-46

### 16. Pell-Lucas collocation method and residual error estimation for the Lane-Emden differential equations

YÜZBAŞI Ş., YILDIRIM G.

TURK-COSE 2020, Nur-Sultan, Kazakhstan, 14 - 15 November 2020, pp.137-149

# 17. An operational matrix method based on Chebyshev polynomials for approximate solutions of systems of higher order linear Fredholm integro-differential equations YÜZBAŞI Ş., YILDIRIM G.

TURK-COSE 2020, Nur-Sultan, Kazakhstan, 14 - 15 November 2020, pp.54-67

### Exponential collocation method to solve systems of multi-pantograph equations YÜZBAŞI Ş.

International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Ankara, Turkey, 22 - 23 November 2018, pp.2733-2744

### 19. Laguerre collocation method for solving first-order linear differential equation with variable delays YÜZBAŞI Ş.

International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Ankara, Turkey, 22 - 23 November 2018, pp.2720-2732

# 20. BESSEL COLLOCATION METHOD FOR SOLVING FIRST ORDER DIFFERENTIAL EQUATIONS WITH VARIABLE DELAYS

YÜZBAŞI Ş., Yıldırım G.

5 th International Congress on Multidisciplinary Studies, Antalya, Turkey, 2 - 03 November 2018, vol.1, pp.110-129

# 21. HERMITE POLYNOMIAL APPROACH FOR SOLVING MODEL OF THE POLLUTION OF A SYSTEM OF LAKES

YÜZBAŞI Ş.

5 th International Congress on Multidisciplinary Studies, Antalya, Turkey, 2 - 03 November 2018, vol.1, pp.130-146

#### 22. Laguerre Collocation Method for Solving Volterra's Population Model

YÜZBAŞI Ş.

Türk Akademik Araştırmalar Dergisi Uluslararası Multidisipliner Kongresi (TARRC), Antalya, Turkey, 12 - 14 October 2018, pp.159-160

#### 23. Bessel Collocation Approach For Solving Second Order Linear Partial Differential Equations Under Initial And Boundary Conditions

YÜZBAŞI Ş.

Türk Akademik Araştırmalar Dergisi Uluslararası Multidisipliner Kongresi (TARRC), Antalya, Turkey, 12 - 14 October 2018, pp.161-162

#### 24. Laguerre Polynomial Solutions Of Systems Of Multi-Pantograph Equations YÜZBAŞI Ş., Yıldırım G.

Türk Akademik Araştırmalar Dergisi Uluslararası Multidisipliner Kongresi (TARRC), Antalya, Turkey, 12 - 14 October 2018, pp.163-164

### 25. Numerical Solutions of One-Dimensional Convection-Diffusion Equation by a Galerkin-Like Method Using Polynomial Basis

YÜZBAŞI Ş., KARAÇAYIR M.

International Conference of Mathematics, İstanbul, Turkey, 3 - 06 July 2018, pp.246

# 26. Numerical Solutions of Lotka-Volterra Equations by a Weighted Residual Scheme Using the Method of Least Squares

YÜZBAŞI Ş., KARAÇAYIR M.

International Conference on Mathemativs (ICOM), İstanbul, Turkey, 3 - 06 July 2018, pp.245

### 27. Laguerre Collocation Method for Solutions of Systems of Linear Differential equations YÜZBAŞI Ş., YILDIRIM G.

International Conference on Mathematics and Mathematics Education (ICMME-2018), Ordu, Turkey, 27 - 29 June 2018, pp.311-312

#### 28. Numerical solution of initial value problems by a Galerkin-like method using multiple intervals YÜZBAŞI Ş., KARAÇAYIR M.

2nd International Conference on Advances in Science, İstanbul, Turkey, 13 - 15 September 2017, pp.282

# 29. Bessel collocation method to determinate the curves of constant breadth according to Bishop Frame in Euclidean 3-space

YÜZBAŞI Ş., Yıldırım G.

15th International Geometry Symposium, Amasya, Turkey, 03 July 2017, pp.86

30. Determination of the curves of constant breadth in Galilean 3-space by Laguerre collocation method YÜZBAŞI Ş., Sezer E.

15th International Geometry Symposium, Amasya, Turkey, 03 July 2017, pp.212

31. **Application of Galerkin-like method to Lotka-Voletrra Predator-prey model** YÜZBAŞI Ş., KARAÇAYIR M.

International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Turkey, 03 July 2017, pp.105

# 32. A Numerical Approach to Obtain Approximate Solutions of Volterra's Population Model with Single Species

YÜZBAŞI Ş., KARAÇAYIR M.

```
2nd International Symposium on Multidisciplinary Sciences, Roma, Italy, 18 - 21 May 2017, pp.121
```

33. An operational matrix approach for solutions of multi-pantograph equations YÜZBAŞI Ş., KARAÇAYIR M., Ismailov N.

2nd International Symposium on Multidisciplinary Studies, Roma, Italy, 18 - 21 May 2017, pp.120

34. Approximate Solutions of Singularly Perturbed Differential Equations by a Numerical Scheme Based

on Inner Product KARAÇAYIR M., YÜZBAŞI Ş.

International Conference on Mathematics and Engineering, İstanbul, Turkey, 10 - 12 May 2017, pp.82

### 35. A Numerical Scheme to Obtain Approximate Solutions of Two-dimensional Telegraph Equation YÜZBAŞI Ş., KARAÇAYIR M.

International Conference on Mathematics and Engineering, İstanbul, Turkey, 10 - 12 May 2017, pp.63

36. **A Galerkin-like method to obtain approximate solutions of an epidemiological computer virus model** KARAÇAYIR M., YÜZBAŞI Ş.

International Conference on Applied Mathematics and Analysis(ICAMA2016), Ankara, Turkey, 11 - 13 July 2016, pp.54

### 37. A Laguerre method to determinate the curves of constant breadth according to Bishop Frame in Euclidean 3-space

YÜZBAŞI Ş., Sezer M., Sezer E.

14th Uluslararası Geometri Sempozyumu, Denizli, Turkey, 25 - 28 May 2016, pp.187

#### 38. A Müntz-Legendre approach to obtain solutions of singular perturbated problems YÜZBAŞI Ş., Sezer M., Gök E.

International Conference on Quantum Science and Applications (ICQSA-2016), Eskişehir, Turkey, 25 - 27 May 2016, pp.97

### 39. Exponential solutions of a class of Lane-Emden equations arising in astrophysics YÜZBAŞI Ş.

International Conference on Quantum Science and Applications (ICQSA-2016), Eskişehir, Turkey, 25 - 27 May 2016, pp.91

### 40. Determination of the curves of constant breadth according to Bishop Frame in Euclidean 3-space by a Galerkin-like method

YÜZBAŞI Ş., KARAÇAYIR M., Sezer M.

14th Uluslararası Geometri Sempozyumu, Denizli, Turkey, 25 - 28 May 2016, pp.186

### 41. A Galerkin-like scheme to solve Riccati equations encountered in quantum physics YÜZBAŞI Ş., Karacayir M.

International Conference on Quantum Science and Applications (ICQSA), Eskişehir, Turkey, 25 - 27 May 2016, vol.766

#### 42. A müntz-legendre method for solving systems of first order linear functional differential equations Gök E., YÜZBAŞI Ş., Sezer M.

International Conference on Advancements in Mathematical Sciences (AMS), Antalya, Turkey, 5 - 07 November 2015, pp.110

### 43. A Numerical Method to Obtain Approximate Solutions of a Model on HIV Infection of CD4+ T-cells KARAÇAYIR M., YÜZBAŞI Ş.

International Conference On Advancements in Mathematical Sciences, Antalya, Turkey, 5 - 07 November 2015, pp.137

### 44. An operation matrix method for solving systems of higher-order linear differential equations with variable coefficients

İsmailov N., YÜZBAŞI Ş.

International Conference on Advancements in Mathematical Sciences (AMS), Antalya, Turkey, 5 - 07 November 2015, pp.127

#### 45. Oransal Gecikmeli Birinci Mertebeden Diferansiyel Denklem Sistemlerinin Yaklaşık Çözümleri İçin Müntz-Legendre Polinom Yöntemi YÜZBAŞI Ş., Gök E., Sezer M.

28. Ulusal Matematik Sempozyumu, Antalya, Turkey, 7 - 09 September 2015, pp.187

### 46. Bir Boyutlu Hiperbolik Telegraf Denkleminin Çözümleri İçin Bessel Kollokasyon Yöntemi YÜZBAŞI Ş.

28. Ulusal Matematik Sempozyumu, Antalya, Turkey, 7 - 09 September 2015, pp.201

47. Lotka-Volterra Nüfus Modelinin Galerkin Tipi Bir Yöntemle Yaklaşık Çözülmesi

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28. Ulusal Matematik Sempozyumu, Antalya, Turkey, 7 - 09 September 2015, pp.202

48. Birinci Mertebeden Lineer Fredholm Integro-Diferansiyel Denklemler İçin Bir Nümerik Yöntem YÜZBAŞI Ş., İsmailov N.

28. Ulusal Matematik Sempozyumu, Antalya, Turkey, 7 - 09 September 2015, pp.203

49. Multi-pantograph denklem sistemlerinin yaklaşık çözümleri için Müntz-Legendre polinom yöntemi YÜZBAŞI Ş., Gök E., Sezer M.

13. Matematik Sempozyumu, Karabük, Turkey, 12 - 13 June 2014, pp.152

50. Application of the homotopy perturbation method for solving delay HIV infection model of CD4+ T-cells

YÜZBAŞI Ş., KARAÇAYIR M.

Karatekin Mathematics Days, Çankırı, Turkey, 11 - 13 June 2014, pp.102

51. Müntz-Legendre matrix method to solve the delay Fredholm differential equations with the constant coefficients

YÜZBAŞI Ş., Gök E., Sezer M.

4th International Conference of Matrix Analysis and Applications, Konya, Turkey, 1 - 04 July 2013, vol.18, pp.33-34

- 52. Müntz-Legendre polynomial solutions of linear delay Fredholm integro-differential equations and residual corrections
  - YÜZBAŞI Ş., Gök E., Sezer M.

4th International Conference on Mathematical and Computational Applications, Manisa, Turkey, 1 - 04 June 2013, vol.18, pp.476-485

### 53. Müntz-Legendre polynomial solutions of the model of pollution for a system of lakes YÜZBAŞI Ş., Gök E., Sezer M.

International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Turkey, 1 - 04 June 2013, pp.140-141

### 54. Yüksek mertebe değişken katsayılı diferansiyel denklem sistemlerinin Müntz-Legendre Polinom çözümleri ve Rezidüel Düzeltme

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8. Ankara Matematik Günleri Sempozyumu, Ankara, Turkey, 1 - 04 June 2013, pp.39

#### 55. Sabit katsayılı diferansiyel-fark denklemlerini çozmek için Müntz-Legendre matris yöntemi YÜZBAŞI Ş., Gök E., ÇEVİKEL S.

8. Ankara Matematik Günleri Sempozyumu, Ankara, Turkey, 1 - 04 June 2013, pp.28

#### 56. A Shifted Legendre approach with residual error estimation for delay linear Fredholm integrodifferential equations

YÜZBAŞI Ş., Şahin N., Sezer M.

The 2nd International Conference on Computation for Science and Technology, Niğde, Turkey, 1 - 04 July 2012, pp.104

57. **Residual correction of the Hermite polynomial solutions of the generalized pantograph equations** Gök E., YÜZBAŞI Ş., Sezer M.

The 2nd International Conference on Computation for Science and Technology, Niğde, Turkey, 1 - 04 July 2012, pp.120

#### 58. Genelleştirilmiş Pantograph Denklemlerin Sisteminin Çözümleri için Bessel Collocation (Sıralama) Metodu

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7. Ankara Matematik Günleri Sempozyumu, Ankara, Turkey, 1 - 04 June 2012, pp.91-92

### 59. Lineer neutral gecikmeli diferansiyel denklemler için Hermite polinom yaklaşımı ve rezidüel iyileştirme

Gök E., YÜZBAŞI Ş., Sezer M.

7. Ankara Matematik Günleri Sempozyumu, Ankara, Turkey, 1 - 04 June 2012, pp.87-88

60. Laguerre series solutions of a class of delay differential equations with the residual error estimation

YÜZBAŞI Ş., Gök E., Sezer M.

International Conference on Applied Analysis and Algebra, İstanbul, Turkey, 1 - 04 June 2012, pp.77-78

61. Lojistik Popülasyon Modelinin Nümerik Çözümü YÜZBAŞI Ş., Şahin N. 10. Matematik Sempozyumu, İstanbul, Turkey, 1 - 04 September 2011 62. Multi-Pantograph Denklemlerin Çözümleri İçin Bir Nümerik Metot YÜZBAŞI Ş. XXIV. Ulusal Matematik Sempozyumu, Bursa, Turkey, 1 - 04 September 2011, pp.135 Bessel collocation method for solving a class of the nonlinear pantograph equations 63. YÜZBAŞI Ş., Sezer M., Şahin N. International Conference on Applied Analysis and Algebra, İstanbul, Turkey, 1 - 04 July 2011, pp.330-331 64. A collocation method for solving system of linear Fredholm-Volterra integral equations with variable coefficients YÜZBAŞI Ş., Şahin N., Sezer M. 2nd International Symposium on Computing in Science and Engineering, Aydın, Turkey, 1 - 04 June 2011, pp.1097-1105 65. Parçalı aralıklı Volterra integro diferansiyel denklemleri çözmek için Bessel Collocation Metodu YÜZBAŞI Ş. 6. Ankara Matematik Günleri Sempozyumu, Ankara, Turkey, 1 - 04 June 2011, pp.144-145 66. Yüksek mertebeden lineer diferansiyel-fark denklemlerinin nümerik çözümü için bir Bessel matris yöntemi YÜZBAŞI Ş. XXIII. Ulusal Matematik Sempozyumu, Kayseri, Turkey, 1 - 04 August 2010, pp.188 67. Lineer olmayan diferansiyel denklemlerin nümerik çözümü için bir Bessel matris yöntemi

### YÜZBAŞI Ş., Şahin N.

5. Ankara Matematik Günleri Sempozyumu, Ankara, Turkey, 1 - 04 June 2010, pp.170

2019 - Continues	Scholarship and Social Services Board Membership	Akdeniz University, Faculty of Science, Department of Mathematics
2018 - Continues	Department Advisory Board Member	Akdeniz University, Faculty of Science, Department of Mathematics
2018 - Continues	Bologna Coordinator of Department of Mathematics	Akdeniz University, Faculty of Science, Department of Mathematics
2016 - Continues	Research and Development Advisory Board Membership	Akdeniz University, Faculty of Science, Department of Mathematics
2016 - Continues	Department Academic Incentive Evaluation Commission Member	Akdeniz University, Faculty of Science, Department of Mathematics
2013 - 2016	Scholarship and Social Services Board Membership	Akdeniz University, Faculty of Science, Department of Mathematics

#### Academic and Administrative Experience

#### Courses

#### Doctorate

Uzmanlık Alan Dersi, Doctorate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014 Danışmanlık, Doctorate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014 Seminer, Doctorate, 2013 - 2014 Adi Diferansiyel Denklemlerin Nümerik Çözümleri, Doctorate, 2013 - 2014 Hipergeometrik Serilerde Seçme Konular, Doctorate, 2012 - 2013 Adi Diferansiyel Denklemlerin Nümerik Çözümleri, Doctorate, 2013 - 2014 Kısmi Türevli Diferansiyel Denklemler, Doctorate, 2013 - 2014 Postgraduate Nümerik Analiz II, Postgraduate, 2015 - 2016, 2014 - 2015 Nümerik Analiz I, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015 Danışmanlık, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015 Uygulamalı Matematik II, Postgraduate, 2014 - 2015 Uygulamalı Matematik I, Postgraduate, 2014 - 2015 Undergraduate Bitirme Çalışması II (ikinci öğretim), Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014 Sayısal Analiz, Undergraduate, 2015 - 2016, 2014 - 2015, 2012 - 2013 Uygulamalı Matematik II (ikinci öğretim), Undergraduate, 2015 - 2016, 2014 - 2015 Diferansiyel Denklemler, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014 Bitirme Çalışması II , Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014 Uygulamalı Matematik I (ikinci öğretim), Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015 Uygulamalı Matematik II, Undergraduate, 2015 - 2016, 2014 - 2015 Diferansiyel Denklemler I, Undergraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014 Bitirme Çalışması I (ikinci öğretim), Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014 Uygulamalı Matematik I, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015 Diferansiyel Denklemler, Undergraduate, 2016 - 2017 İşletme Matematiği (Şube 2), Undergraduate, 2014 - 2015, 2013 - 2014 İşletme Matematiği (Şube 3), Undergraduate, 2014 - 2015, 2013 - 2014 İşletme Matematiği (şube 1), Undergraduate, 2014 - 2015, 2013 - 2014 Analiz II, Undergraduate, 2014 - 2015 İşletme Matematiği (Şube 5), Undergraduate, 2014 - 2015, 2013 - 2014 Bilimsel Hesaplamaya Giriş II (ikinci öğretim), Undergraduate, 2013 - 2014 Matematik (Sube 1), Undergraduate, 2014 - 2015, 2013 - 2014 İşletme Matematiği (Şube 4), Undergraduate, 2014 - 2015, 2013 - 2014 Matematik (Şube 2), Undergraduate, 2014 - 2015, 2013 - 2014 Matematik (Sube 3), Undergraduate, 2014 - 2015, 2013 - 2014 Diferansiyel Denklemler, Undergraduate, 2014 - 2015 Bilimsel Hesaplamaya Giriş II, Undergraduate, 2013 - 2014 Matematik (Şube 4), Undergraduate, 2014 - 2015, 2013 - 2014 Diferansiyel Denklemler, Undergraduate, 2012 - 2013 Lineer Cebir, Undergraduate, 2012 - 2013 Matematik 2, Undergraduate, 2012 - 2013 Diferansiyel Denklemler, Undergraduate, 2013 - 2014 Bitirme Çalışması 1, Undergraduate, 2013 - 2014 Genel Matematik 2, Undergraduate, 2012 - 2013 Uygulamalı Matematik (ikinci öğretim), Undergraduate, 2013 - 2014 Uygulamalı Matematik, Undergraduate, 2013 - 2014 Matematik, Undergraduate, 2013 - 2014 Lineer Cebir, Undergraduate, 2012 - 2013

Analiz 2, Undergraduate, 2012 - 2013 Analiz 1, Undergraduate, 2012 - 2013

#### **Supervised Theses**

YÜZBAŞI Ş., CD4+T Hücrelerinin HIV Enfeksiyonu Modellerinin Yaklaşık Çözümleri İçin Lucas Kollokasyon Yöntemi, Postgraduate, A.Kurt(Student), 2021 YÜZBAŞI Ş., Kesirli Mertebeden Lineer Diferansiyel Denklem Ve Sistemlerinin Çözümleri İçin Lucas Kollokasyon Yöntemi, Postgraduate, G.GÖK(Student), 2021 YÜZBAŞI Ş., Diferansiyel, Fonksiyonel Diferansiyel ve İntegro-diferansiyel Denklemler ve Sistemleri için Galerkin-tipi bir Sayısal Yöntem, Doctorate, M.KARAÇAYIR(Student), 2018 YÜZBAŞI Ş., Lineer Diferansiyel Denklem Sistemlerinin Çözümleri İçin Laguerre Kollokasyon Yöntemi, Postgraduate, G.YILDIRIM(Student), 2018 YÜZBAŞI Ş., Dikdörtgensel bölgede lineer kompleks diferansiyel denklemlerin çözümleri için laguerre kollokasyon yöntemi, Postgraduate, H.Nur(Student), 2017 YÜZBAŞI Ş., Gecikmeli diferansiyel denklem sistemlerinin yaklaşık çözümleri için Müntz-Legendre sıralama yöntemi, Doctorate, E.GÖK(Student), 2016

#### Activities in Scientific Journals

Symmetry-Basel, Special Issue Editor, 2021 - Continues Annals of Artificial Intelligence Research, Committee Member, 2021 - Continues HIV Infection: Research Studies, Committee Member, 2019 - Continues Cloud Computing and Data Science, Editor, 2019 - Continues Contemporary Mathematics, Editor, 2019 - Continues Research and Communications in Mathematics and Mathematical Sciences, First Editor, 2019 - Continues Journal of Engineering and Applied Mathematics, Editor, 2015 - Continues Journal of Advances in Applied & Computational Mathematics, Editor, 2014 - Continues Journal of Pure and Applied Mathematics: Advances and Applications, Editor, 2013 - Continues Cmes-Computer Modeling In Engineering, Special Issue Editor, 2019 - 2020 Research and Communications in Mathematics and Mathematical Sciences, Editor, 2012 - 2019 International Journal of Differential Equations, Special Issue Editor, 2018 - 2018 Applied Mathematics and Physics, Special Issue Editor, 2017 - 2017 Turkish Journal Of Mathematics, Editor, 2016 - 2017

#### Peer Reviews in Scientific Publications

Iranian Journal of Science and Technology, Transactions A: Science, SCI Journal, May 2017 Advances in Mathematical Physics , SCI Journal, May 2017 Advances in Difference Equations, SCI Journal, May 2017 Research and Communications in Mathematics and Mathematical Sciences, Other Indexed Journal, March 2017 Journal of Computational and Applied Mathematics, SCI Journal, March 2017 International Journal of Biomathematics, SCI Journal, March 2017 Nonlinear Engineering Modeling and Application, Other Indexed Journal, March 2017 Nonlinear Dynamics, SCI Journal, March 2017 Turkish Journal of Mathematics, SCI Journal, February 2017 International Journal of Differential Equations , Other Indexed Journal, February 2017 International Journal of Biomathematics, SCI Journal, February 2017 Journal of Advances in Applied & Computational Mathematics, Other Indexed Journal, January 2017 Mathematical Sciences, Other Indexed Journal, January 2017 Advances in Mathematical Physics, Other Indexed Journal, January 2017 Turk. J. Math. Comput. Sci., Other Indexed Journal, December 2016 Turk. J. Math. Comput. Sci., Other Indexed Journal, December 2016 Journal of Mathematics, Other Indexed Journal, December 2016 Advances in Difference Equations, SCI Journal, December 2016 International Journal of Biomathematics, SCI Journal, November 2016 Journal of Applied Mathematics and Computing, Other Indexed Journal, November 2016 Appl Math J Chinese Univ, Other Indexed Journal, November 2016 Turkish Journal of Mathematics, SCI Journal, November 2016 IEEE Transactions on Circuits and Systems II: Express Briefs, SCI Journal, November 2016 International Journal of Computer Mathematics, SCI Journal, November 2016 Nonlinear Dynamics, SCI Journal, November 2016 Turk J Math Comput Sci (TJMCS), Other Indexed Journal, October 2016 Research and Communications in Mathematics and Mathematical Sciences, Other Indexed Journal, October 2016 Turkish Journal of Mathematics, SCI Journal, October 2016 Kuwait Journal of Science, SCI Journal, October 2016 Journal of the Association of Arab Universities for Basic and Applied Sciences , Other Indexed Journal, September 2016 Neural Computing and Applications, SCI Journal, September 2016 International Journal of Differential Equations, Other Indexed Journal, September 2016 Journal of Applied Mathematics, SCI Journal, September 2016 Alexandria Engineering Journal, Other Indexed Journal, August 2016 International Journal of Numerical Methods for Heat and Fluid Flow, SCI Journal, July 2016 Turkish Journal of Mathematics, SCI Journal, July 2016 Turkish Journal of Mathematics, SCI Journal, June 2016 International Journal of Numerical Methods for Heat and Fluid Flow, SCI Journal, June 2016 Neural Computing and Applications, SCI Journal, June 2016 Applications and Applied Mathematics: An International Journal (AAM), Other Indexed Journal, June 2016 Engineering Computations, SCI Journal, June 2016 Engineering Computations, SCI Journal, June 2016 Iranian Journal of Science and Technology, Transactions A: Science, SCI Journal, May 2016 New Trends in Mathematical Sciences, Other Indexed Journal, May 2016 International Journal of Biomathematics, SCI Journal, May 2016 The European Physical Journal - Plus, SCI Journal, May 2016 Applied Soft Computing, SCI Journal, April 2016 Research and Communications in Mathematics and Mathematical Sciences, Other Indexed Journal, April 2016 Iranian Journal of Science and Technology, Transactions A: Science, SCI Journal, April 2016 Engineering Computations, SCI Journal, April 2016 Journal of Mathematics and Statistics, Other Indexed Journal, April 2016 International Journal of Computer Mathematics, SCI Journal, April 2016 Biomedical Research, SCI Journal, April 2016 International Journal of Computational Methods, SCI Journal, April 2016 Nonlinear Dynamics, SCI Journal, April 2016 Asian Journal of Mathematics and Computer Research, Other Indexed Journal, March 2016 Journal of the Association of Arab Universities for Basic and Applied Sciences, Other Indexed Journal, March 2016 Applied Soft Computing, SCI Journal, March 2016 Journal of Pure and Applied Mathematics: Advances and Applications, Other Indexed Journal, March 2016 Neural Computing and Applications, SCI Journal, March 2016 Asian Journal of Mathematics and Computer Research, Other Indexed Journal, March 2016 Journal of Pure and Applied Mathematics: Advances and Applications, Other Indexed Journal, February 2016

International Journal of Biomathematics, SCI Journal, February 2016 Kuwait Journal of Science, SCI Journal, February 2016 International Journal of Computational Methods, SCI Journal, January 2016 British Journal of Mathematics & Computer Science, Other Indexed Journal, January 2016 Advances in Research, Other Indexed Journal, December 2015 British Journal of Applied Science & Technology, Other Indexed Journal, December 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, December 2015 Journal of Applied Mathematics, Other Indexed Journal, December 2015 Kuwait Journal of Science, SCI Journal, December 2015 British Journal of Applied Science & Technology, Other Indexed Journal, December 2015 Journal of the Association of Arab Universities for Basic and Applied Sciences, Other Indexed Journal, December 2015 American Journal of Applied Sciences, Other Indexed Journal, December 2015 Journal of the Association of Arab Universities for Basic and Applied Sciences, Other Indexed Journal, December 2015 Applied Mathematics and Computation, SCI Journal, November 2015 Kuwait Journal of Science, SCI Journal, November 2015 International Journal of Biomathematics, SCI Journal, November 2015 Applied Mathematics and Computation, SCI Journal, November 2015 Alexandria Engineering Journal, Other Indexed Journal, November 2015 International Journal of Computational Methods, SCI Journal, November 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, November 2015 Applicable Analysis, SCI Journal, November 2015 Journal of King Saud University (Science), Other Indexed Journal, October 2015 International Journal of Biomathematics, SCI Journal, October 2015 Journal of King Saud University (Science), Other Indexed Journal, September 2015 Journal of King Saud University (Science), Other Indexed Journal, September 2015 Asian Journal of Mathematics and Computer Research, Other Indexed Journal, September 2015 International Journal of Computer Mathematics, SCI Journal, September 2015 Kuwait Journal of Science, SCI Journal, September 2015 Iranian Journal of Mathematical Sciences and Informatics, Other Indexed Journal, September 2015 Filomat, SCI Journal, August 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, August 2015 Zeitschrift für Naturforschung C, SCI Journal, August 2015 Applied Mathematics and Computation, SCI Journal, August 2015 International Journal of Computer Mathematics, SCI Journal, August 2015 Neural Computing and Applications, SCI Journal, July 2015 New Trends in Mathematical Sciences, Other Indexed Journal, July 2015 Turkish Journal of Mathematics, SCI Journal, July 2015 Applied Mathematics and Computation, SCI Journal, July 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, June 2015 Journal of Computational and Nonlinear Dynamics, SCI Journal, June 2015 Mathematical & Computational Applications, Other Indexed Journal, June 2015 Applied Mathematics and Computation, SCI Journal, June 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, June 2015 Neural Computing and Applications, SCI Journal, June 2015 Applied Mathematics and Computation, SCI Journal, May 2015 African Journal of Mathematics and Computer Science Research, Other Indexed Journal, May 2015 Asian Journal of Mathematics and Computer Research, Other Indexed Journal, April 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, April 2015 Kuwait Journal of Science, SCI Journal, April 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, April 2015 Asian Journal of Mathematics and Computer Research, Other Indexed Journal, April 2015

British Journal of Mathematics & Computer Science, Other Indexed Journal, April 2015 Asian Journal of Mathematics and Computer Research, Other Indexed Journal, April 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, April 2015 Gazi University Journal of Science, Other Indexed Journal, March 2015 New Trends in Mathematical Sciences, Other Indexed Journal, March 2015 International Journal of Computer Mathematics, SCI Journal, March 2015 Turkish Journal of Mathematics, SCI Journal, March 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, March 2015 Asian Journal of Mathematics and Computer Research, Other Indexed Journal, March 2015 Mathematical Methods in the Applied Sciences, SCI Journal, March 2015 Ain Shams Engineering Journal, Other Indexed Journal, February 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, February 2015 British Journal of Mathematics & Computer Science, Other Indexed Journal, February 2015 Applied Mathematical Modelling, SCI Journal, February 2015 New Trends in Mathematical Sciences, Other Indexed Journal, February 2015 Applied Mathematics and Computation, SCI Journal, January 2015 Turkish Journal of Mathematics, SCI Journal, January 2015 International Journal of Computer Mathematics, SCI Journal, January 2015 Ain Shams Engineering Journal, Other Indexed Journal, January 2015 British Journal of Mathematics & Computer Science, SCI Journal, December 2014 Mathematical Methods in the Applied Sciences, SCI Journal, December 2014 British Journal of Mathematics & Computer Science, SCI Journal, December 2014 Kuwait Journal of Science, SCI Journal, November 2014 British Journal of Mathematics & Computer Science, SCI Journal, November 2014 Applied Mathematics and Computation, SCI Journal, October 2014 Filomat, SCI Journal, October 2014 Journal of Applied Mathematics and Computing, Other Indexed Journal, August 2014 Neural Computing and Applications, SCI Journal, August 2014 Mathematical Methods in the Applied Sciences, SCI Journal, August 2014 Neural Computing and Applications, SCI Journal, August 2014 Neural Computing and Applications, SCI Journal, July 2014 Applied Mathematical Modelling, SCI Journal, July 2014 Journal of Advances in Applied & Computational Mathematics, Other Indexed Journal, June 2014 Alexandria Engineering Journal, Other Indexed Journal, June 2014 New Trends in Mathematical Sciences, Other Indexed Journal, June 2014 International Journal of Computational Mathematics, Other Indexed Journal, June 2014 Journal of Applied Mathematics, SCI Journal, May 2014 Mathematical Methods in the Applied Sciences, SCI Journal, May 2014 African Journal of Mathematics and Computer Science Research, Other Indexed Journal, April 2014 International Journal of the Physical Sciences, Other Indexed Journal, March 2014 International Journal of Physical Sciences, Other Indexed Journal, March 2014 Bulletin of the Belgian Mathematical Society, SCI Journal, March 2014 Ain Shams Engineering Journal, Other Indexed Journal, March 2014 Journal of Applied Mathematics, SCI Journal, February 2014 Journal of Computational and Nonlinear Dynamics, Other Indexed Journal, February 2014 Ain Shams Engineering Journal, Other Indexed Journal, February 2014 Journal of Applied Mathematics and Computing, Other Indexed Journal, February 2014 Ain Shams Engineering Journal, Other Indexed Journal, December 2013 Journal of Science (Kharazmi University), Other Indexed Journal, December 2013 University of Ordu Journal of Science and Technology, Other Indexed Journal, October 2013 Journal of Science (Kharazmi University), Other Indexed Journal, October 2013

International Journal of Physical Sciences, Other Indexed Journal, October 2013 Ain Shams Engineering Journal, Other Indexed Journal, October 2013 Applied Mathematical Modelling, SCI Journal, September 2013 Scientific Research and Essays, Other Indexed Journal, September 2013 Applied Mathematics & Information Sciences, SCI Journal, September 2013 International Journal of Computer Mathematics, Other Indexed Journal, August 2013 World Applied Science Journal, Other Indexed Journal, July 2013 Journal of Applied Mathematics and Informatics, Other Indexed Journal, June 2013 International Journal of Computer Mathematics, Other Indexed Journal, June 2013 Ain Shams Engineering Journal, Other Indexed Journal, June 2013 Applied and Computational Mathematics, SCI Journal, May 2013 Turkish Journal of Mathematics, SCI Journal, May 2013 Ain Shams Engineering Journal, Other Indexed Journal, May 2013 Abstract and Applied Analysis, SCI Journal, April 2013 Applied Mathematical Modelling, SCI Journal, April 2013 Advanced Research in Dynamical & Control Systems, Other Indexed Journal, March 2013 Journal of Pure and Applied Mathematics: Advances and Applications, Other Indexed Journal, March 2013 International Journal of Computer Mathematics, Other Indexed Journal, March 2013 Journal of the Franklin Institute, Other Indexed Journal, March 2013 Mathematical and Computational Applications, Other Indexed Journal, March 2013 Journal of Pure and Applied Mathematics: Advances and Applications, Other Indexed Journal, March 2013 Mathematical and Computational Applications, Other Indexed Journal, March 2013 Mathematical and Computer Modelling, SCI Journal, February 2013 World Journal of Modeling and Simulation, Other Indexed Journal, February 2013 Abstract and Applied Analysis, SCI Journal, February 2013 World Journal of Modeling and Simulation, Other Indexed Journal, January 2013 Scientific Research and Essays, Other Indexed Journal, January 2013 IMA Journal of Mathematical Control and Information, SCI Journal, January 2013 Journal of the Franklin Institute, Other Indexed Journal, January 2013 World Applied Science Journal, Other Indexed Journal, January 2013 Nonlinear Analysis: Modelling and Control, Other Indexed Journal, October 2012 International Journal of Nonlinear Science, Other Indexed Journal, October 2012 Journal of the Franklin Institute, Other Indexed Journal, October 2012 Journal of the Franklin Institute, Other Indexed Journal, October 2012 Journal of Applied Mathematics and Computing, Other Indexed Journal, August 2012 Journal of Advanced Research in Scientific Computing, Other Indexed Journal, August 2012 Ain Shams Engineering Journal, Other Indexed Journal, July 2012 IMA Journal of Mathematical Control and Information, SCI Journal, June 2012 Mathematical Methods in the Applied Sciences, SCI Journal, June 2012 Ain Shams Engineering Journal, Other Indexed Journal, May 2012 Applied Mathematical Modelling, SCI Journal, May 2012 Discrete Dynamics in Nature and Society, SCI Journal, May 2012 Applicable Analysis, Other Indexed Journal, May 2012 Applications and Applied Mathematics: An International Journal (AAM), Other Indexed Journal, April 2012 Ain Shams Engineering Journal, Other Indexed Journal, March 2012 Applicable Analysis, Other Indexed Journal, March 2012 International Journal of Nonlinear Sciences and Numerical Simulation, Other Indexed Journal, February 2012 Applications and Applied Mathematics: An International Journal (AAM), Other Indexed Journal, February 2012 Applications and Applied Mathematics: An International Journal (AAM), Other Indexed Journal, January 2012

#### Metrics

Publication: 211 Citation (WoS): 1517 Citation (Scopus): 1544 H-Index (WoS): 22 H-Index (Scopus): 22

#### **Congress and Symposium Activities**

13th International Conference of Strategic Research on Scientific Studies and Education (ICoSReSSE), Attendee, Antalya, Turkey, 2021 2. INTERNATIONAL CONGRESS ON MATHEMATICS AND GEOMETRY, Attendee, Ankara, Turkey, 2021 2. AL FARABI INTERNATIONAL CONGRESS ON APPLIED SCIENCES, Attendee, Nakhchivan, Azerbaijan, 2021 INTERNATIONAL CONGRESS ON MATHEMATICS AND GEOMETRY, Attendee, Ankara, Turkey, 2020 1. INTERNATIONAL CONGRESS ON MATHEMATICS AND GEOMETRY, Moderator, Ankara, Turkey, 2020 TURK-COSE 2020: 2nd International Turkish World Science and Engineering Congress, Attendee, Niğde, Turkey, 2020 5 th International Congress on Multidisciplinary Studies, Attendee, Ankara, Turkey, 2018 5 th International Congress on Multidisciplinary Studies, Attendee, Antalya, Turkey, 2018 Türk AkademAraştırmalar Dergisi Uluslararası Multidisipliner Kongresi (TARRC), Attendee, Antalya, Turkey, 2018 International Conference on Mathematics (ICOM), Attendee, İstanbul, Turkey, 2018 International Conference on Mathematics and Mathematics Education (ICMME-2018), Attendee, Ordu, Turkey, 2018 2nd International Conference on Advances in Science, Attendee, İstanbul, Turkey, 2017 International Conference on Applied Analysis and Mathematical Modelling, Attendee, İstanbul, Turkey, 2017 15th International Geometry Symposium, Attendee, Amasya, Turkey, 2017 II. International Symposium on Multidisciplinary Studies, Attendee, Rome, Italy, 2017 International Conference on Mathematics and Engineering, Attendee, İstanbul, Turkey, 2017 International Conference on Applied Mathematics and Analysis(ICAMA2016), Attendee, Ankara, Turkey, 2016 14th Uluslararası Geometri Sempozyumu, Attendee, Denizli, Turkey, 2016 International Conference on Quantum Science and Applications (ICQSA-2016), Attendee, Eskişehir, Turkey, 2016 International Conference on Quantum Science and Applications (ICQSA-2016), Attendee, Turkey, 2016 14th Uluslararası Geometri Sempozyumu, Attendee, Turkey, 2016 International Conference on Quantum Science and Applications (ICQSA-2016), Attendee, Turkey, 2016 International Conference on Advancements in Mathematical Sciences (AMS), Attendee, Antalya, Turkey, 2015 28. Ulusal Matematik Sempozyumu, Attendee, Antalya, Turkey, 2015 13. Matematik Sempozyumu, Attendee, Karabük, Turkey, 2014 Karatekin Mathematics Days, Attendee, Çankırı, Turkey, 2014 4th International Conference of Matrix Analysis and Applications, Attendee, Konya, Turkey, 2013 8. Ankara Matematik Günleri Sempozyumu, Attendee, Ankara, Turkey, 2013 4th International Conference on Mathematical and Computational Applications, Attendee, Manisa, Turkey, 2013 International Conference on Applied Analysis and Mathematical Modelling, Attendee, İstanbul, Turkey, 2013 The 2nd International Conference on Computation for Science and Technology, Attendee, Niğde, Turkey, 2012 The 2nd International Conference on Computation for Science and Technology, Attendee, Niğde, Turkey, 2012 International Conference on Applied Analysis and Algebra, Attendee, İstanbul, Turkey, 2012 7. Ankara Matematik Günleri Sempozyumu, Attendee, Ankara, Turkey, 2012 10. Matematik Sempozyumu, Attendee, İstanbul, Turkey, 2011 XXIV. Ulusal Matematik Sempozyumu, Attendee, Bursa, Turkey, 2011 International Conference on Applied Analysis and Algebra, Attendee, İstanbul, Turkey, 2011 2nd International Symposium on Computing in Science and Engineering, Attendee, Aydın, Turkey, 2011 6. Ankara Matematik Günleri Sempozyumu, Attendee, Ankara, Turkey, 2011

XXIII. Ulusal Matematik Sempozyumu, Attendee, Kayseri, Turkey, 2010
Fifth RISC/SCIENCE Training School in Symbolic Computation, Attendee, Hagenberg, Austria, 2010
5. Ankara Matematik Günleri Sempozyumu, Attendee, Ankara, Turkey, 2010

#### **Research Areas**

Mathematics, Differential Equations, Functional Equations, Integral Equations, Integral Transformations, Computational Calculation, Partial Differential Equations, Special Functions, Numerical Analysis, Approximations and Expansions, Natural Sciences