Asst. Prof. TUĞÇEM PARTAL

Personal Information

Office Phone: <u>+90 464 223 6126</u> Extension: 1815 Email: tugcem.partal@erdogan.edu.tr Other Email: tugcempartal@gmail.com Web: https://avesis.erdogan.edu.tr/tugcem.partal

International Researcher IDs ORCID: 0000-0003-0446-0525 Yoksis Researcher ID: 153910

Education

Doctorate, Yildiz Technical University, Kimya Metalurji Fakültesi, Matematik Mühendisliği, Turkey 2012 - 2018

Research Areas

algorithms, Computer Graphics, Database and Data Structures, Software, Computer Science, Differential Equations, Economics, Social Sciences and Behavioral Sciences, Statistics, Probability Theory, Stochastic Processes, Optimization, Numerical Analysis

Academic Positions

Assistant Professor, Recep Tayyip Erdogan University, MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ, BİLGİSAYAR MÜHENDİSLİĞİ, 2024 - Continues

Assistant Professor, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2021 - Continues Research Assistant PhD, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2018 - 2021 Research Assistant, Yildiz Technical University, Kimya Metalurji Fakültesi, Matematik Mühendisliği, 2012 - 2018 Research Assistant, Firat University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2010 - 2011

Academic and Administrative Experience

Head of Department, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2021 - 2024

Courses

Postgraduate Mühendislik Matematiği, Postgraduate, 2021 - 2022 İleri Diferansiyel Denklemler, Postgraduate, 2021 - 2022 MATLAB, Postgraduate, 2022 - 2023 Diferansiyel Denklemlerin Sayısal Çözüm Yöntemleri, Postgraduate, 2021 - 2022 Undergraduate Matlab Programlama, Undergraduate, 2024 - 2025 Diferansiyel Denklemler, Undergraduate, 2022 - 2023 Programlama Dilleri, Undergraduate, 2021 - 2022 Mühendislikte Diferansiyel Denklemler, Undergraduate, 2020 - 2021 Mühendislik Metematiği, Undergraduate, 2021 - 2022 Mali Matematik, Undergraduate, 2020 - 2021 Algoritma ve Veri Yapıları, Undergraduate, 2021 - 2022

Supervised Theses

Partal T., Bulaşıcı hastalıkların matematiksel modellemesi, Postgraduate, M.KAKŞİ(Student), 2024

Jury Memberships

Post Graduate, Post Graduate, Fırat Üniversitesi, June, 2024 Post Graduate, Post Graduate, Fırat Üniversitesi, June, 2024 Post Graduate, Post Graduate, Fırat Üniversitesi, May, 2024 Doctoral Examination, Doctoral Examination, Fırat Üniversitesi, May, 2023 Competition, TEKNOFEST, Recep Tayyip Erdoğan Üniversitesi, August, 2022 Post Graduate, Post Graduate, Fırat Üniversitesi, June, 2022

Journal articles indexed in SCI, SSCI, and AHCI

- I. Stochastic Gompertzian Model for Parathyroid Tumor Growth Partal T., Bayram M. Mathematical Methods in the Applied Sciences, 2025 (SCI-Expanded)
- II. Numerical methods for simulation of stochastic differential equations Bayram M., Partal T., Buyukoz G. O. ADVANCES IN DIFFERENCE EQUATIONS, 2018 (SCI-Expanded)
- III. PARAMETER ESTIMATION IN A BLACK-SCHOLES MODEL Bayram M., Orucova Buyukoz G., Partal T. THERMAL SCIENCE, vol.22, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. Comparison of Numerical Methods for the Kuba Oscillator
 Büyüköz G. O., Partal T., Bayram P. D. M.
 Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, no.14, pp.260-272, 2025 (Peer-Reviewed Journal)
- II. Comparing the solution of the Kdv equation by three different methods
 BULUT H., PARTAL T.
 ournal of Advanced Research in Scientific Computing, vol.2, no.3, 2010 (Peer-Reviewed Journal)

Papers Presented at Peer-Reviewed Scientific Conferences

Exact Solutions for the Wick-Type Stochastic Zakharov-Kuznetsov Equation
 Partal T., Aslan E. C.
 IV. International Applied Statistics Congress (UYIK - 2023), Sarajevo, Bosnia And Herzegovina, 26 - 29 September 2023, pp.93, (Summary Text)

II. Numerical Simulation of a Stochastic Model in Tumor Growth

Partal T.

IV. International Applied Statistics Congress (UYIK - 2023), Sarajevo, Bosnia And Herzegovina, 26 - 29 September 2023, pp.556, (Summary Text)

III. Stochastic Epidemic Models in Discrete Time Partal T., Bayram M. International Conference on Nonlinear Science and Complexity (ICNSC23), İstanbul, Turkey, 10 - 15 July 2023,

pp.203, (Summary Text) IV. SIR EPIDEMIC MODEL FOR COVID-19 SPREAD

Partal T.

7th International Conference on Computational Mathematics and Engineering Sciences, Elazığ, Turkey, 20 - 21 May 2023, pp.170, (Summary Text)

V. On the Exact Solutions of Wick Type Stochastic Boussinesq Equation

Partal T., İnç M., Bayram M. ONLINE INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, İstanbul, Turkey, 11 - 13 June 2021, pp.106, (Summary Text)

VI. Numerical Simulation of SIR System"

Partal T., Bayram M.

8th International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2019), İstanbul, Turkey, 10 March 2019, (Summary Text)

VII. On the Stochastic Differential Equations in Mathematical Finance

Partal T., Bayram M.

2nd International Conference on Economics, Finance and Management: "Challenges of the 21st Century in Economics, Finance and Management, İstanbul, Turkey, 3 - 04 May 2018, pp.18, (Summary Text)

VIII. On the Numerical Solution of a Stochastic Oscillator

Partal T.

TFD, 34. ULUSLARARASI FİZİK KONGRESİ, Muğla, Turkey, 5 - 09 September 2018, (Summary Text)

IX. On the Analytical Solution for Stochastic Differential Equations with Lie Symmetry Analysis PARTAL T., KÜÇÜKARSLAN YÜZBAŞI Z., CAVLAK ASLAN E.

7th International Conference on Applied Analysis and MAthematical Modeling, İstanbul, Turkey, 20 - 24 June 2018, (Full Text)

X. Numerical Simulation of the Heston Model PARTAL T., BAYRAM M.

7th International Conference on Applied Analysis and Mathematical Modeling, 20 - 24 June 2018, (Summary Text)

XI. A Stochastic Model for Parathyroid Tumours PARTAL T., BAYRAM M.

3rd International Conference on Computational Mathematics and Engineering Sciences, CMES 2018, 4 - 06 May 2018, (Summary Text)

XII. Numerical Simulation of Stochastic Oscillator
 ORUCOVA G., PARTAL T., BAYRAM M.
 International Conference on Mathematics and Computational Science and Engineering, Tokyo, Japan, 27 - 28 July 2017, (Full Text)

XIII. A Stochastic Model of Human Breast Cancer Growth

PARTAL T., ORUCOVA G., BAYRAM M.

International Conference on Mathematics and Computational Science and Engineering, Tokyo, Japan, 27 - 28 July 2017, (Full Text)

XIV. Stability of Strong Numerical Schemes for Stochastic Differential Equations PARTAL T., BAYRAM M.

International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2017), İstanbul, Turkey, 3 - 07 July 2017, (Summary Text)

XV. Numerical Solutions of Stochastic SIS Epidemic Model

PARTAL T, BAYRAM M. International Conference on Applied Analysis and Mathematical Modeling (ICAAMM 2017), İstanbul, Turkey, 3 - 07 July 2017, (Summary Text) XVI. Stochastic Runge-Kutta Methods In A Gompertzian Stochastic Model PARTAL T, BAYRAM M. 2nd International Conference On Computational Mathematics And Engineering Sciences-(Cmes2017), İstanbul, Turkey, 20 - 22 May 2017, (Summary Text) XVII. Maximum Likelihood Parameter Estimation Method for Tumor Growth PARTAL T., BAYRAM M. International Conference on Mathematics and Engineering (ICOME 2017), İstanbul, Turkey, 10 - 12 May 2017, (Summary Text) XVIII. Explicit Runge-Kutta Methods for a Stochastic Model in Tumour Growth PARTAL T, BAYRAM M. 3rd International Conference on Pure and Applied Sciences, Dubai, United Arab Emirates, 2 - 06 February 2017, (Summary Text) XIX. Numerical Simulation of Nonlinear Stochastic Differential Equations PARTAL T., BAYRAM M. 2nd International Conference on Pure Applied Science (ICPAS-2016), İstanbul, Turkey, 1 - 05 June 2016, (Summary Text) XX. Maximum Likelihood Estimation in Stochastic Differential Equations PARTAL T., ORUCOVA G., BAYRAM M. 2nd International Conference on Pure Applied Science (ICPAS-2016), İstanbul, Turkey, 1 - 05 June 2016, (Summary Text) XXI. Numerical Solution of Second order Stochastic Differential Equations ORUCOVA G., PARTAL T., BAYRAM M. 2nd International Conference on Pure Applied Science (ICPAS-2016), İstanbul, Turkey, 1 - 05 June 2016, (Summary Text) XXII. Gompertzian Stochastic Model for Tumor Growth PARTAL T., ORUCOVA G., BAYRAM M. International Conference on Mathematics and Mathematics Education, Elazığ, Turkey, 12 - 14 May 2016, (Summary Text) XXIII. **Black Scholes Model with Numerical Solutions** ORUCOVA G., PARTAL T., BAYRAM M. nternational Conference on Mathematics and Mathematics Education (ICMME-2016), Elazığ, Turkey, 12 - 14 May 2016, (Summary Text) XXIV. Hedging Strategies for Exotic Options PARTAL T., BAYRAM M. 4th International Conference on Mathematics Information Science., Cairo, Egypt, 3 - 07 February 2015, (Summary Text) XXV. The Solutions of Burgers' Equation by Three Different Methods PARTAL T., BULUT H. IV Congress of the Turkic World Mathematical Society, Baku, Azerbaijan, 1 - 03 June 2011, (Summary Text)

Peer Reviews in Scientific Publications

Osmaniye Korkut Ata Üniversitesi Fen Bilimleri Enstitüsü Dergisi (Online), National Scientific Refreed Journal, August 2023

Erciyes Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, July 2023 Karadeniz Fen Bilimleri Dergisi, National Scientific Refreed Journal, March 2023 Avrupa Bilim ve Teknoloji Dergisi, Other Indexed Journal, January 2023 Ikonion Journal of Mathematics, Other Indexed Journal, December 2022 computers materials and continua, Journal Indexed in SCI-E, January 2022 Cumhuriyet Science Journal , Other Indexed Journal, November 2021 SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, Journal Indexed in ESCI, September 2021 Computers, Materials & Continua, Journal Indexed in ESCI, August 2021 ADIYAMAN ÜNİVERSİTESİ MÜHENDİSLİK BİLİMLERİ DERGİSİ, Other Indexed Journal, May 2021 Avrupa Bilim ve Teknoloji Dergisi, National Scientific Refreed Journal, May 2021 MATHEMATICAL METHODS IN THE APPLIED SCIENCES, Journal Indexed in ESCI, February 2021 Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, Other Indexed Journal, October 2020 Muş Alparslan Üniversitesi Fen Bilimleri Dergisi, Other Indexed Journal, June 2020

Scientific Consultations

Teknofest, Scientific Consultancy, Recep Tayyip Erdogan University, Fen Edebiyat Fakültesi, Matematik Bölümü, Turkey, 2022 - Continues

Roles in Event Organizations

Partal T., 2023 Hybrid Conference on Nonlinear Science and Complexity, Scientific Congress, Turkey, Temmuz 2023 Partal T., ONLINE INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, Scientific Congress, Turkey, Temmuz 2022

Partal T., ONLINE INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, Scientific Congress, İstanbul, Turkey, Haziran 2021

Partal T., First Online Conference On Modern Fractional Calculus And Its Applications (OCMFCA), Scientific Congress, İstanbul, Turkey, Aralık 2020

Partal T., INTERNATIONAL CONFERENCE ON MATHEMATICS AND ENGINEERING, Scientific Congress, Turkey, Mayıs 2017

Partal T., 2nd International Conference on Pure & Applied Science, Scientific Congress, Turkey, Haziran 2016 Partal T., International Conference on Applied Analysis and Mathematical Modeling , Scientific Congress, Turkey, Haziran 2015

Metrics

Publication: 30 Citation (WoS): 19 Citation (Scopus): 76 H-Index (WoS): 2 H-Index (Scopus): 2

Congress and Symposium Activities

12th International Conference on Applied Analysis and Mathematical Modeling, 2024, Session Moderator, İstanbul, Turkey, 2024

IV. International Applied Statistics Congress (UYIK - 2023), Attendee, Sarajevo, Bosnia And Herzegovina, 2023 International Conference on Nonlinear Science and Complexity, Attendee, İstanbul, Turkey, 2023

International Conference on Nonlinear Science and Complexity, Session Moderator, İstanbul, Turkey, 2023

7th International Conference on Computational Mathematics and Engineering Sciences, Attendee, Elazığ, Turkey, 2023 10th (Online) International Conference on Applied Analysis and Mathematical Modeling, Session Moderator, İstanbul, Turkey, 2022

ONLINE INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, Session Moderator, İstanbul, Turkey, 2021

ONLINE INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, Attendee, İstanbul, Turkey, 2021

7th International Conference on Applied Analysis and Mathematical Modeling, Attendee, İstanbul, Turkey, 2018 3rd International Conference on Computational Mathematics and Engineering Sciences, Attendee, Girne, Cyprus (Kktc), 2018

International Conference on Mathematics and Computational Science and Engineering, Attendee, Tokyo, Japan, 2017 International Conference on Applied Analysis and Mathematical Modeling, Attendee, İstanbul, Turkey, 2017 2nd International Conference On Computational Mathematics And Engineering Sciences, Attendee, İstanbul, Turkey, 2017

International Conference on Mathematics and Engineering, Working Group, İstanbul, Turkey, 2017 2nd International Conference on Pure Applied Science (ICPAS-2016), Session Moderator, İstanbul, Turkey, 2016