MELIH ÇINAR
ASST. PROF.

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International Researcher IDs
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Publons / Web Of Science ResearcherID: AAZ-4661-2020
ScopusID: 57193766321
Yoksis Researcher ID: 227884

Biography

Melih currently works as an Asst. Prof. Dr. at Department of Mathematical Engineering at Yildiz Technical University. He is married and has one daughter. His research topics are Fractional Calculus, Wavelets, Special Functions, Solitons, Nonlinear PDEs, Fuzzy Logic, Artificial Intelligence and Neural Networks. He has 25+ articles, 20+ conference papers in these areas. He has experience as a reviewer in many international journals and he has taken part as organizing committee member and session chair in many international conferences. So far, he has contributed to 5 projects funded by TUBITAK and YTU.

Learning Knowledge

Doctorate 2015 - 2022	Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey
Postgraduate 2012 - 2015	Bülent Ecevit Üniversitesi, Fen Bilimleri Enstitüsü, Turkey
Undergraduate 2007 - 2012	Bülent Ecevit Üniversitesi, Turkey

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Wavelet Methods for Solving Nonlinear Fractional Order Partial Differential Equations, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, 2022
Postgraduate, Fuzzy Metrik Uzaylar, Bülent Ecevit Üniversitesi, Fen Bilimleri Enstitüsü, Matematik, 2015

Academic Titles / Tasks

Assistant Professor 2023 - Continues	Yildiz Technical University, Faculty Of Chemıcal And Metallurgıcal Engıneerıng, Department Of Mathematics Engineering
Research Assistant 2015 - 2023	Yildiz Technical University, Graduate School Of Natural And Applied Sciences, -
Research Assistant 2015 - 2023	Yildiz Technical University, Faculty Of Chemıcal And Metallurgıcal Engıneerıng, Department Of Mathematics Engineering

Supported Projects

1. ÖZIŞIK M., DURMUŞ S., ESEN H., ÖNDER İ., ÇAKICIOĞLU H., SEÇER A., BAYRAM M., ÇINAR M., ÖZDEMİR N., Project Supported by Higher Education Institutions, Optik Soliton İletiminde Kerr Doğrusal Olmayan Yasası Etkisi ve Çeşitli Doğrusal Olmayan Schrödinger Modelleri Üzerinde İncelenmesi, 2023 - Continues
2. ÇINAR M., DURMUŞ S., ESEN H., BAYRAM M., ÇAKICIOĞLU H., ÖNDER İ., SEÇER A., ÖZIŞIK M., ÖZDEMİR N., Project Supported by Higher Education Institutions, Optik Ortamlarda Farklı Doğrusal Olmayan Yapılara Sahip Tedirgin Doğrusal Olmayan Schrödinger Denklemi ve Optik Soliton Çözümleri, 2023 - Continues
3. ÖZIŞIK M., ESEN H., BAYRAM M., ÖZDEMİR N., SEÇER A., ÇINAR M., ÖNDER İ., Project Supported by Higher Education Institutions, Optik fiberlerde soliton iletiminde düşük kromatik dağılım sayısı sorununun çözümüne dair SchrödingerHirota ve kübikkuartik FokasLenells modelleri üzerinde bazı optik soliton çözümlerinin incelenmesi, 2022 - 2023
4. ÖZIŞIK M., ÖNDER İ., BAYRAM M., ÇINAR M., SEÇER A., ÖZDEMİR N., ESEN H., Project Supported by Higher Education Institutions, Optik fiberlerde yüksek mertebeden doğrusal olmayan Schrödinger denkleminin Kudryashov doğrusal olmayan kırılma indisi ile ilgili optik soliton çözümlerinin incelenmesi, 2022 - 2023
5. SEÇER A., ÖZIŞIK M., ÇINAR M., ÖZDEMİR N., BAYRAM M., Project Supported by Higher Education Institutions, Kesirli Mertebeden Peyrard-Bishop DNA dinamik denkleminin Analitik Çözümlerinin İncelenmesi, 2022 - 2023
6. Çınar M., Seçer A., Project Supported by Higher Education Institutions, Kesirli Mertebeden Kısmi Diferansiyel Denklem Sistemlerinin Yeni Analitik Çözümleri, 2021 - 2023
7. Seçer A., Bayram M., Çınar M., Esen H., Önder İ., Project Supported by Higher Education Institutions, Kesirli Mertebeden Kısmi Diferansiyel Denklem Sistemlerinin Yeni Analitik Çözümleri, 2021 - 2022

Awards

1. Çınar M., "Most Published Article Award Among Assistant Professors at YTU in 2022", Yıldız Teknik Üniversitesi, April 2023
2. Çınar M., 2012 Yılı Bölüm Birincisi, Bülent Ecevit Üniversitesi, June 2012

Scholarships

2211A DOKTORA BURSU, TUBITAK, 2016 - 2020

Published journal articles indexed by SCI, SSCI, and AHCI

1. **On obtaining optical solitons of the perturbed cubic-quartic model having the Kudryashov's law of**

refractive index
ÇINAR M., Cakicioglu H., SEÇER A., ÖZIŞIK M., BAYRAM M.
Optical and Quantum Electronics, vol.56, no.2, 2024 (SCI-Expanded)

2. **Nonlinear complex generalized zakharov dynamical system inconformal sense utilizing new kudryashov method**
SEÇER A., BAYRAM M., ÖZDEMİR N., ÖNDER İ., ESEN H., ÇINAR M., Aydin H.
Physica Scripta, vol.99, no.2, 2024 (SCI-Expanded)
3. **On obtaining analytical soliton solutions of Drinfeld-Sokolov-Satsuma-Hirota equation via two efficient methods**
Cakicioglu H., ÇINAR M., SEÇER A., ÖZIŞIK M., BAYRAM M.
Physica Scripta, vol.99, no.1, 2024 (SCI-Expanded)
4. **A comprehensive analysis of Fokas–Lenells equation using Lie symmetry method**
ÇINAR M., SEÇER A., Sajjad Hashemi M., ÖZIŞIK M., BAYRAM M.
Mathematical Methods in the Applied Sciences, 2024 (SCI-Expanded)
5. **Investigation of soliton solutions to the Peyrard-Bishop-Deoxyribo-Nucleic-Acid dynamic model with beta-derivative**
SEÇER A., ÖZIŞIK M., BAYRAM M., ÖZDEMİR N., ÇINAR M.
Modern Physics Letters B, 2024 (SCI-Expanded)
6. **Retrieval of optical solitons: Complex cubic–quintic Ginzburg–Landau equation augmented with the anti-cubic law**
ÇINAR M., Cakicioglu H., SEÇER A., ÖZIŞIK M., BAYRAM M.
Optik, vol.289, 2023 (SCI-Expanded)
7. **On soliton solutions of the modified equal width equation**
ÖNDER İ., ÇINAR M., SEÇER A., BAYRAM M.
Engineering Computations (Swansea, Wales), vol.40, no.5, pp.1063-1083, 2023 (SCI-Expanded)
8. **Optical solitons of improved perturbed nonlinear Schrödinger equation with cubic-quintic-septic and triple-power laws in optical metamaterials**
ÇINAR M., Cakicioglu H., SEÇER A., ÖZIŞIK M., BAYRAM M.
Physica Scripta, vol.98, no.7, 2023 (SCI-Expanded)
9. **Optical solitons for Kundu–Mukherjee–Naskar equation via enhanced modified extended tanh method**
Cakicioglu H., ÇINAR M., SEÇER A., Bayram M.
Optical and Quantum Electronics, vol.55, no.5, 2023 (SCI-Expanded)
10. **Investigation of optical soliton solutions of higher-order nonlinear Schrödinger equation having Kudryashov nonlinear refractive index**
ÖZIŞIK M., SEÇER A., Bayram M., ÇINAR M., ÖZDEMİR N., ESEN H., ÖNDER İ.
Optik, vol.274, 2023 (SCI-Expanded)
11. **Solitons in dual-core optical fibers with chromatic dispersion**
ÖZIŞIK M., Bayram M., SEÇER A., ÇINAR M.
Optical and Quantum Electronics, vol.55, no.2, 2023 (SCI-Expanded)
12. **On the investigation of optical soliton solutions of cubic–quartic Fokas–Lenells and Schrödinger–Hirota equations**
ÖZIŞIK M., ÖNDER İ., ESEN H., ÇINAR M., Ozdemir N., SEÇER A., Bayram M.
Optik, vol.272, 2023 (SCI-Expanded)
13. **Optical soliton solutions of (1+1)- and (2+1)-dimensional generalized Sasa-Satsuma equations using new Kudryashov method**
Çınar M., Secer A., Özışık M., Bayram M.
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.20, no.2, 2023 (SCI-Expanded)
14. **On the analytical soliton solutions of (1 + 1)-dimensional complex coupled nonlinear Higgs field model**
ÖZIŞIK M., BAYRAM M., SEÇER A., ÇINAR M.

European Physical Journal: Special Topics, 2023 (SCI-Expanded)

15. **Optical soliton solutions of the Chen–Lee–Liu equation in the presence of perturbation and the effect of the inter-modal dispersion, self-steepening and nonlinear dispersion**
ÖZIŞIK M., Bayram M., SEÇER A., Cinar M.
Optical and Quantum Electronics, vol.54, no.12, 2022 (SCI-Expanded)
16. **Comparative analysis for the nonlinear mathematical equation with new wave structures**
Onder İ., Cinar M., Secer A., Yusuf A., Bayram M., Sulaiman T. A.
European Physical Journal Plus, vol.137, no.10, 2022 (SCI-Expanded)
17. **Analytical solutions of (2+1)-dimensional Calogero-Bogoyavlenskii-Schiff equation in fluid mechanics/plasma physics using the New Kudryashov method**
ÇINAR M., SEÇER A., Bayram M.
PHYSICA SCRIPTA, vol.97, no.9, 2022 (SCI-Expanded)
18. **Optical solitons to the (1+2)-dimensional Chiral non-linear Schrodinger equation**
ÖZIŞIK M., Bayram M., Secer A., ÇINAR M., Yusuf A., Sulaiman T. A.
OPTICAL AND QUANTUM ELECTRONICS, vol.54, no.9, 2022 (SCI-Expanded)
19. **Healthcare service quality evaluation: An integrated decision-making methodology and a case study**
Karasan A., Erdogan M., Cinar M.
Socio-Economic Planning Sciences, vol.82, 2022 (SCI-Expanded)
20. **Derivation of optical solitons of dimensionless Fokas-Lenells equation with perturbation term using Sardar sub-equation method**
ÇINAR M., SEÇER A., ÖZIŞIK M., Bayram M.
OPTICAL AND QUANTUM ELECTRONICS, vol.54, no.7, 2022 (SCI-Expanded)
21. **Optical solitons with Kudryashov's sextic power-law nonlinearity**
Ozisik M., Çınar M., Secer A., Bayram M.
OPTIK, vol.261, 2022 (SCI-Expanded)
22. **Solving the fractional Jaulent-Miodek system via a modified Laplace decomposition method**
ÇINAR M., ÖNDER İ., SEÇER A., Bayram M., Sulaiman T. A., Yusuf A.
WAVES IN RANDOM AND COMPLEX MEDIA, 2022 (SCI-Expanded)
23. **A comparison of analytical solutions of nonlinear complex generalized Zakharov dynamical system for various definitions of the differential operator**
ÇINAR M., ÖNDER İ., SEÇER A., Bayram M., Yusuf A., Sulaiman T. A.
Electronic Research Archive, vol.30, no.1, pp.335-361, 2022 (SCI-Expanded)
24. **An application of Genocchi wavelets for solving the fractional Rosenau-Hyman equation☆**
ÇINAR M., SEÇER A., Bayram M.
Alexandria Engineering Journal, vol.60, no.6, pp.5331-5340, 2021 (SCI-Expanded)
25. **Optical solitons of the (2+1)-dimensional Biswas-Milovic equation using modified extended tanh-function method**
Çınar M., Önder İ., Seçer A., Sulaiman T. A., Yusuf A., Bayram M.
OPTIK, vol.245, 2021 (SCI-Expanded)
26. **The analytical solutions of Zoomeron equation via extended rational sin-cos and sinh-cosh methods**
ÇINAR M., ÖNDER İ., SEÇER A., Yusuf A., Abdulkadir Sulaiman T., Bayram M., Aydin H.
Physica Scripta, vol.96, no.9, 2021 (SCI-Expanded)
27. **A JACOBI WAVELET COLLOCATION METHOD FOR FRACTIONAL FISHER'S EQUATION IN TIME**
Seçer A., Cinar M.
THERMAL SCIENCE, vol.24, 2020 (SCI-Expanded)

Articles Published in Other Journals

1. **Retrieval of optical solitons: Drinfeld-Sokolov-Satsuma- Hirota Equation**
Çınar M., Çakıcıoğlu H., Seçer A., Özışık M., Bayram M.

New Trends in Mathematical Sciences, vol.11, no.4, pp.1-6, 2023 (Conference Book)

2. **Analytical solutions of simplified modified Camassa-Holm equation with conformable and M-truncated derivatives: A comparative study**
   Onder İ., Cinar M., Secer A., Bayram M.
   Journal of Ocean Engineering and Science, 2022 (Scopus)
3. **Soliton Solutions of (2 + 1) Dimensional Heisenberg Ferromagnetic Spin Equation by the Extended Rational sine- cosine and sinh- cosh Method**
   ÇINAR M., ÖNDER İ., SEÇER A., Yusuf A., Sulaiman T. A., Bayram M., Aydin H.
   International Journal of Applied and Computational Mathematics, vol.7, no.4, 2021 (Scopus)

Books & Book Chapters

1. **Fuzzy Time Series-An Application In E-Commerce**
   KARAŞAN A., SEVİM İ., ÇINAR M.
   in: Intelligent Techniques and Modeling Applications in Marketing Analytics, Kumar A., Kumar M., Kumar Panda T.,, Editor, Igı-Global, Hershey, pp.258-290, 2016

Refereed Congress / Symposium Publications in Proceedings

1. **The Complex Cubic-Quintic Ginzburg-Landau Equation having Anti-Cubic Law Nonlinearity and Its Optical Solitons**
   Çınar M., Çakıcıoğlu H., Seçer A., Özışık M., Bayram M.
   (hybrid) International Conference on Nonlinear Science and Complexity (ICNSC23,) July 10-15, 2023, Istanbul-Turkey, İstanbul, Turkey, 10 - 15 July 2023, pp.95
2. **Soliton Solutions of the Drinfeld-Sokolov-Satsuma-Hirota Equation**
   Çınar M., Çakıcıoğlu H., Seçer A., Özışık M., Bayram M.
   (hybrid) International Conference on Nonlinear Science and Complexity (ICNSC23,) July 10-15, 2023, Istanbul-Turkey, İstanbul, Turkey, 10 - 15 July 2023, pp.104
3. **On the optical soliton solutions of a couple of equations with Kerr law nonlinearity**
   Önder İ., Çınar M., Esen H., Özışık M., Seçer A., Bayram M.
   International Conference on Analysis and Applied Mathematics, İstanbul, Turkey, 31 October - 06 November 2022, pp.134
4. **Soliton solutions for a nonlinear dynamical system in conformable sense**
   Seçer A., Bayram M., Çınar M., Esen H., Önder İ.
   International Conference on Analysis and Applied Mathematics, İstanbul, Turkey, 31 October - 06 November 2022, pp.133
5. **Investigation of optical soliton solutions of higher order nonlinear Schrödinger equations with Kudryashov nonlinear refractive index**
   ÇINAR M., ÖNDER İ., ÖZDEMİR N., ESEN H., ÖZIŞIK M., SEÇER A., BAYRAM M.
   Sixth International Conference on Analysis and Applied Mathematics - ICAAM 2022, İstanbul, Turkey, 31 October 2022, pp.131
6. **An investigation on nonlinear higher order Schrödinger equation having refractive indices and chromatic dispersion**
   Özışık M., Seçer A., Bayram M., Çınar M., Esen H., Önder İ.
   Online International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 1 - 03 July 2022, pp.61-62
7. **Optical soliton solutions of nonlinear Schrödinger-Hirota model involving nonlinear chromatic dispersion**
   Özışık M., Seçer A., Bayram M., Çınar M., Esen H., Önder İ.

Online International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 1 - 03 July 2022, pp.34-35

8. **An investigation of the DNA Peyrard–Bishop equation with beta-derivative**
SEÇER A., ÖZIŞIK M., ÖZDEMİR N., ÇINAR M., BAYRAM M.
10th (Online) International Conference on Applied Analysis and Mathematical Modeling (ICAAMM22), İstanbul, Turkey, 01 July 2022, pp.47
9. **Solving nonlinear fractional PDEs using novel wavelet collocation method**
Çınar M.
INTERNATIONAL SYMPOSIUM ON APPLIED MATHEMATICS AND ENGINEERING, İstanbul, Turkey, 21 - 23 January 2022, pp.1
10. **On novel exact solutions of nonlinear PDEs using sin-cos and sinh-cosh methods**
Çınar M.
INTERNATIONAL SYMPOSIUM ON APPLIED MATHEMATICS AND ENGINEERING, İstanbul, Turkey, 21 - 23 January 2022, pp.2
11. **A comparison of analytical solutions of a nonlinear PDE with conformable and M- truncated derivatives**
Çınar M., Seçer A.
9th (Online) International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 11 - 13 June 2021, pp.64
12. **On Exact Solutions of Fractional Differential Equations**
Çınar M., Seçer A.
International E-Conference on Mathematical Advances and Applications, İstanbul, Turkey, 26 - 29 May 2021, pp.1-10
13. **A Numerical Scheme Based on Taylor Wavelets for Solving Fractional Differential Equations**
Çınar M., Seçer A.
International E-Conference on Mathematical Advances and Applications, İstanbul, Turkey, 26 - 29 May 2021, pp.1-18
14. **Genocchi wavelet method for a class of fractional differential equations**
Çınar M., Seçer A.
First Online Conference On Modern Fractional Calculus And Its Applications (OCMFCA-2020), İstanbul, Turkey, 4 - 06 December 2020, pp.1-20
15. **On the Sinc-Galerkin Method for Solving Fractional Integro-differential Equations**
Çınar M., Seçer A.
International Conference on Mathematical Advances and Applications, İstanbul, Turkey, 24 - 27 June 2020, pp.1-2
16. **An Application of Müntz Wavelets Galerkin Method for Solving the Fractional Differential Equations**
Çınar M., Seçer A.
IInternational Conference on Mathematical Advances and Applications, İstanbul, Turkey, 24 - 27 June 2020, pp.3-4
17. **Chebyshev wavelets method for solving Fisher's equation**
Seçer A., Çınar M.
International Conference on Computational Methods in Applied Sciences, İstanbul, Turkey, 12 - 16 July 2019, pp.12
18. **A Numerical Solution of Boussinesq Equation by Using Laguerre Wawelets**
Seçer A., Çınar M.
nternational Conference on Computational Methods in Applied Sciences, İstanbul, Turkey, 12 - 16 July 2019, pp.43-44
19. **Necessary Conditions for the Optimal Control of the Beams under Moving Mass**
Çınar M., Seçer A.
International Conference on Mathematical Advances and Applications, İstanbul, Turkey, 3 - 05 May 2019, pp.100
20. **A Numerical Approach to Active Damping of Beam-String System**
Çınar M., Seçer A.
International Conference on Mathematical Advances and Applications, İstanbul, Turkey, 3 - 05 May 2019, pp.101
21. **A numerical approach to an optimal control of beam under moving mass**

Seçer A., Çınar M.
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELLING (ICAAMM2019), İstanbul, Turkey, 10 - 13 March 2019, pp.20

22. **Active Control of a Smart Beam under a Moving Mass**
Seçer A., Çınar M.
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELLING (ICAAMM2019), İstanbul, Turkey, 10 - 13 March 2019, pp.10

23. **An Optimal Control of Transverse Vibrations of anEuler-Bernoulli Beam-String Complex System**
KÜÇÜK İ., ÇINAR M.
The International conference of Applied and Engineering Mathematics, Londrina, Brazil, 5 - 07 July 2017

24. **An Active Control of a Beam-String Continuous System**
ÇINAR M., KÜÇÜK İ.
International Conference on Mathematics and Engineering, İstanbul, Turkey, 10 May 2017, pp.1

Academic and Administrative Experience

2023 - Continues	**Assistant Director of the Institute**	Yildiz Technical University

Courses

Adi Diferansiyel Denklemlerin Nümerik Çözümleri, Undergraduate, 2022 - 2023
Kısmi Diferansiyel Denklemlerin Nümerik Çözümleri, Undergraduate, 2022 - 2023

Scientific Refereeing

ENGINEERING STRUCTURES, SCI Journal, December 2019

Metrics

Publication: 55
Citation (WoS): 301
Citation (Scopus): 400
H-Index (WoS): 10
H-Index (Scopus): 13

Research Areas

algorithms, Database Systems, Artificial Intelligence, Computer Learning and Pattern Recognition, Fuzzy Sets and Systems, Neural Networks, Software, Differential Equations, Partial Differential Equations, Optics