

## Assoc. Prof. Erkan Çimen

### Personal Information

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### International Researcher IDs

ScholarID: MJ-KYYAAAAAJ

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Publons / Web Of Science ResearcherID: J-2065-2017

ScopusID: 35110362400

Yoksis Researcher ID: 156783

### Education Information

Doctorate, Van Yüzüncü Yil University, Fen Bilimleri Enstitüsü, Matematik, Turkey 2007 - 2010

Postgraduate, Van Yüzüncü Yil University, Fen Bilimleri Enstitüsü, Matematik, Turkey 2001 - 2004

Undergraduate, Eskisehir Osmangazi University, Fen Edebiyat Fakültesi, Matematik, Turkey 1994 - 1998

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Gecikme Parametresi İçeren Singüler Pertürbe Sınır Değer Probleminin Sonlu Fark Metodu ile Nümerik Çözümleri, Van Yüzüncü Yil University, Fen Bilimleri Enstitüsü, Matematik, 2010

Postgraduate, Singüler pertürbe diferansiyel denklemlerle matematiksel modellemeler ve nümerik çözümler, Van Yüzüncü Yil University, Fen Bilimleri Enstitüsü, Matematik, 2004

### Research Areas

Mathematics, Differential Equations, Functional Equations, Numerical Analysis, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Van Yüzüncü Yil University, Eğitim Fakültesi, Matematik ve Fen Bilimleri Eğitimi, 2019 - Continues

Assistant Professor, Van Yüzüncü Yil University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi, 2018 - 2019

Assistant Professor, Van Yüzüncü Yil University, Eğitim Fakültesi, Orta Öğretim Fen ve Matematik Alanları Eğitimi Bölümü, 2012 - 2018

Research Assistant PhD, Van Yüzüncü Yil University, Fen Fakültesi, Matematik Bölümü, 2010 - 2012

Research Assistant, Van Yüzüncü Yıl University, Fen Fakültesi, Matematik Bölümü, 2002 - 2010

## Courses

Diferansiyel Denklemlerle Modelleme ve Uygulamaları-II, Postgraduate, 2022 - 2023  
Diferansiyel Denklemlerle Modelleme ve Uygulamaları-I, Postgraduate, 2022 - 2023  
Dif. ve Fark Denk. için İter. Yönt.-I, Postgraduate, 2017 - 2018  
Difreansiyel Denklemler -I, Undergraduate, 2017 - 2018  
Mathematica ve Uygulamaları-I, Postgraduate, 2017 - 2018  
Diferansiyel Denklemler-II, Undergraduate, 2016 - 2017  
Dif. ve Fark Denk. için İter. Yönt.-II, Postgraduate, 2016 - 2017  
Alan Eğitiminde Araştırma Projesi, Undergraduate, 2015 - 2016  
Uzmanlık Alan Dersi, Postgraduate, 2015 - 2016  
Mezuniyet Çalışması-II, Undergraduate, 2015 - 2016  
Kısmi Tür. Dif. Denk.-II, Undergraduate, 2015 - 2016  
Mesleki İngilizce, Undergraduate, 2015 - 2016  
Mezuniyet Çalışması-I, Undergraduate, 2015 - 2016  
Uygulamalı Matematik-II, Undergraduate, 2015 - 2016  
Uygulamalı Matematik-I, Undergraduate, 2015 - 2016

## Advising Theses

Çimen E., Gecikmeli Fredholm İntegro-Diferansiyel Denklemlerin Nümerik Çözümleri, Postgraduate, K.ENTERİLİ(Student), 2021  
Çimen E., Gecikmeli Volterra İntegro-Diferansiyel Denklemlerin Nümerik Çözümleri, Postgraduate, S.Yatar(Student), 2020  
Çimen E., Gecikmeli diferansiyel denklem için başlangıç değer problemi ve çözümleri, Postgraduate, Ş.ÜNCÜ(Student), 2020  
Çimen E., Neutral Delay Diferansiyel Denklemlerin Nümerik Çözümleri, Postgraduate, Y.Ekinci(Student), 2017  
Çimen E., Parametreye bağlı delay diferansiyel denklemlerin yaklaşık çözümleri, Postgraduate, M.BAYRAM(Student), 2017  
Çimen E., Temel istatistik konularındaki bir bilgisayar yazılımının öğrencilerin başarı ve tutumlarına etkisinin incelenmesi, Postgraduate, E.Abdurrahman(Student), 2014

## Jury Memberships

Doctorate, Doctorate, Van Yüzüncü Yıl Üniversitesi, September, 2023  
Post Graduate, Tez Savunma Jürisi, Muş Alparslan Üniversitesi Fen Bilimleri Enstitüsü, June, 2019  
Doctorate, Tez Savunma Jürisi, YYÜ Fen Bilimleri Enstitüsü, March, 2017  
Doctorate, Tez Savunma Jürisi, YYÜ Fen Bilimleri Enstitüsü, June, 2015  
Doctorate, Tez Savunma Jürisi, YYÜ Fen Bilimleri Enstitüsü, June, 2014

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

- Uniformly convergent method for two coupled nonlinear singularly perturbed systems arising in chemical kinetics**  
Çimen E., Uncu S.  
BULLETIN OF THE BELGIAN MATHEMATICAL SOCIETY - SIMON STEVIN, vol.31, no.5, pp.628-649, 2024 (SCI-

Expanded)

- II. **A novel uniform numerical approach to solve a singularly perturbed Volterra integro-differential equation**  
Çakır M., Çimen E.  
COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS, vol.63, no.10, pp.1800-1816, 2023 (SCI-Expanded)
- III. **A numerical approach for solving nonlinear Fredholm integro-differential equation with boundary layer**  
Çakır M., Ekinci Y., Çimen E.  
COMPUTATIONAL & APPLIED MATHEMATICS, vol.41, no.6, 2022 (SCI-Expanded)
- IV. **An efficient method for solving second-order delay differential equation**  
Çimen E., Üncü Ş.  
Miskolc Mathematical Notes, vol.22, no.2, pp.625-638, 2021 (SCI-Expanded)
- V. **A uniform numerical method for solving singularly perturbed Fredholm integro-differential problem**  
Çimen E., Çakır M.  
COMPUTATIONAL & APPLIED MATHEMATICS, vol.40, no.2, 2021 (SCI-Expanded)
- VI. **Uniformly convergent numerical method for a singularly perturbed differential difference equation with mixed type**  
Çimen E.  
BULLETIN OF THE BELGIAN MATHEMATICAL SOCIETY-SIMON STEVIN, vol.27, no.5, pp.755-774, 2020 (SCI-Expanded)
- VII. **The difference schemes for solving singularly perturbed three-point boundary value problem**  
Çakır M., Çimen E., Amiraliev G. M.  
LITHUANIAN MATHEMATICAL JOURNAL, vol.60, no.2, pp.147-160, 2020 (SCI-Expanded)
- VIII. **Uniform Convergence Method for a Delay Differential Problem with Layer Behaviour**  
Çimen E., Amiraliev G. M.  
MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.16, no.3, 2019 (SCI-Expanded)
- IX. **Numerical Solution of a Boundary Value Problem Including Both Delay and Boundary Layer**  
Çimen E.  
MATHEMATICAL MODELLING AND ANALYSIS, vol.23, no.4, pp.568-581, 2018 (SCI-Expanded)
- X. **CONVERGENCE ANALYSIS OF FINITE DIFFERENCE METHOD FOR SINGULARLY PERTURBED NONLOCAL DIFFERENTIAL-DIFFERENCE PROBLEM**  
Çimen E., Çakır M.  
MISKOLC MATHEMATICAL NOTES, vol.19, no.2, pp.795-812, 2018 (SCI-Expanded)
- XI. **High-order finite difference technique for delay pseudo-parabolic equations**  
Amiraliev G. M., Çimen E., Amiraliev I., Çakır M.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.321, pp.1-7, 2017 (SCI-Expanded)
- XII. **Numerical treatment of nonlocal boundary value problem with layer behaviour**  
Çimen E., Çakır M.  
BULLETIN OF THE BELGIAN MATHEMATICAL SOCIETY-SIMON STEVIN, vol.24, no.3, pp.339-352, 2017 (SCI-Expanded)
- XIII. **Numerical treatment of a quasilinear initial value problem with boundary layer**  
Çakır M., Çimen E., Amiraliev I., Amiraliev G. M.  
INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, vol.93, no.11, pp.1845-1859, 2016 (SCI-Expanded)
- XIV. **Explicit Finite Difference Methods for the Delay Pseudoparabolic Equations**  
Amiraliev I., Amiraliev G. M., Çakır M., Çimen E.  
SCIENTIFIC WORLD JOURNAL, 2014 (SCI-Expanded)
- XV. **Numerical method for a singularly perturbed convection-diffusion problem with delay**  
Amiraliev G. M., Çimen E.  
APPLIED MATHEMATICS AND COMPUTATION, vol.216, no.8, pp.2351-2359, 2010 (SCI-Expanded)

## Articles Published in Other Journals

- I. **A novel approximation on the solution of systems of ordinary differential equations**  
Üncü Ş., Çimen E.  
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.15, no.1, pp.191-202, 2024 (ESCI)
- II. **A novel numerical approach for solving delay differential equations arising in population dynamics**  
Obut T., Çimen E., Çakır M.  
MATHEMATICAL MODELLING AND CONTROL, vol.3, no.3, pp.233-243, 2023 (ESCI)
- III. **A numerical approach for Fredholm delay integro differential equation**  
Çimen E., Enterili K.  
Communications in Mathematics and Applications, vol.12, no.3, pp.619-631, 2021 (ESCI)
- IV. **Fredholm İntegro Diferansiyel Denklemin Sayısal Çözümü için Alternatif Bir Yöntem**  
Çimen E., Enterili K.  
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.13, no.1, pp.46-53, 2020 (Peer-Reviewed Journal)
- V. **Numerical solution of Volterra integro-differential equation with delay**  
Çimen E., Yatar S.  
JOURNAL OF MATHEMATICS AND COMPUTER SCIENCE-JMCS, vol.20, no.3, pp.255-263, 2020 (ESCI)
- VI. **On the Solution of the Delay Differential Equation via Laplace Transform**  
Çimen E., Uncu S.  
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.11, no.3, pp.379-387, 2020 (ESCI)
- VII. **CONVERGENCE ANALYSIS OF APPROXIMATE METHOD FOR A SINGULARLY PERTURBED DIFFERENTIAL-DIFFERENCE PROBLEM**  
Çimen E., Amiralıyev G. M.  
JOURNAL OF MATHEMATICAL ANALYSIS, vol.10, no.3, pp.23-37, 2019 (ESCI)
- VIII. **A first order convergent numerical method for solving the delay differential problem**  
Çimen E.  
INTERNATIONAL JOURNAL OF MATHEMATICS AND COMPUTER SCIENCE, vol.14, no.2, pp.387-402, 2019 (ESCI)
- IX. **A Computational Method for Volterra Integro-Differential Equation**  
Çimen E.  
Erzincan University Journal of Science and Technology, vol.11, no.3, pp.347-352, 2018 (Peer-Reviewed Journal)
- X. **A PRIORI ESTIMATES FOR SOLUTION OF SINGULARLY PERTURBED BOUNDARY VALUE PROBLEM WITH DELAY IN CONVECTION TERM**  
Çimen E.  
JOURNAL OF MATHEMATICAL ANALYSIS, vol.8, no.1, pp.202-211, 2017 (ESCI)
- XI. **Numerical method for a neutral delay differential problem**  
Çimen E., Ekinçi Y.  
INTERNATIONAL JOURNAL OF MATHEMATICS AND COMPUTER SCIENCE, vol.12, no.1, pp.1-11, 2017 (ESCI)
- XII. **A Uniform Convergent Method for Singularly Perturbed Nonlinear Differential-Difference Equation**  
Çimen E., Amiralıyev G. M.  
JOURNAL OF INFORMATICS AND MATHEMATICAL SCIENCES, vol.9, no.1, pp.191-199, 2017 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Gecikmeli Diferansiyel Denklemin Laplace Dönüşümü ile Çözümü**  
Üncü Ş., Çimen E.  
32. Ulusal Matematik Sempozyumu, Samsun, Turkey, 31 August - 03 September 2019, pp.47
- II. **Sınır Katı İçeren Fredholm İntegro-Diferansiyel Denklemin Nümerik Çözümü**  
Çimen E.  
32.Ulusal Matematik Sempozyumu, Samsun, Turkey, 31 August - 03 September 2019, pp.64

- III. **Fredholm İntegro Diferansiyel Denklemin Sayısal Çözümü için Alternatif Bir Yöntem**  
Enterili K., Çimen E.  
32. Ulusal Matematik Sempozyumu, Samsun, Turkey, 31 August - 03 September 2019, pp.45
- IV. **Gecikmeli Volterra İntegro-Diferansiyel Denklemin Nümerik Çözümü**  
Ekinci Y., Çimen E.  
32. Ulusal Matematik Sempozyumu, Samsun, Turkey, 31 August - 03 September 2019, pp.72
- V. **Parametreye Bağlı Nötral Tip Delay Diferansiyel Denklemin Nümerik Çözümü"**  
Ekinci Y., Çimen E.  
31. Ulusal Matematik Sempozyumu, Erzincan, Turkey, 12 - 15 September 2018, pp.87
- VI. **Singüler Pertürbe Özellikli Karışık Tip Fonksiyonel Diferansiyel Denklemin Nümerik Çözümü**  
Çimen E.  
31.Ulusal Matematik Sempozyumu, Erzincan, Turkey, 12 - 15 September 2018, pp.93
- VII. **Delay Diferansiyel Denklemler İçin Başlangıç Değer Probleminin Nümerik Çözümü**  
Üncü Ş., Çimen E.  
31.Ulusal Matematik Sempozyumu, Erzincan, Turkey, 12 - 15 September 2018, pp.86
- VIII. **Computational Method for a Singularly Perturbed Mixed Type Delay Differential Problem**  
Çimen E.  
International Conference on Mathematics and Mathematics Educations (ICMME-2018), Ordu, Turkey, 25 - 27 June 2018, pp.265-266
- IX. **Singüler pertürbe özellikli diferansiyel-fark probleminin nümerik çözümü**  
Çimen E.  
30. Ulusal Matematik Sempozyumu, Ankara, Turkey, 6 - 09 September 2017, pp.33
- X. **Numerical solution of singularly perturbed nonlocal problem with delay**  
Çakır M., Çimen E.  
Caucasian Mathematics Conference II, Van, Turkey, 22 - 24 August 2017, pp.44
- XI. **Sınır Katman Davranışlı Nonlocal Başlangıç Değer Probleminin Nümerik Çözümü**  
Çakır M., Çimen E.  
28. ULUSAL MATEMATİK SEMPOZYUMU, Antalya, Turkey, 7 - 09 September 2015, pp.190

## Supported Projects

Çimen E., Project Supported by Higher Education Institutions, Sınır Katı İçeren Fredholm İntegro-Diferansiyel Denklemin Nümerik Çözümü, 2019 - 2019

Çimen E., Project Supported by Higher Education Institutions, Singüler Pertürbe Olmuş Karışık Tip Delay Diferansiyel Problem için Çözüm Yöntemi, 2018 - 2018

## Scientific Refereeing

JOURNAL OF DIFFERENCE EQUATIONS AND APPLICATIONS, Journal Indexed in SCI-E, June 2020

ENGINEERING COMPUTATIONS, Journal Indexed in SCI-E, May 2020

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, November 2019

Turkish Journal of Mathematics and Computer Science, National Scientific Refreed Journal, October 2019

Advances in Computational Mathematics, SCI Journal, August 2019

Quaestiones Mathematicae, SCI Journal, July 2019

Mathematical Modelling and Analysis, SCI Journal, June 2019

Journal of Applied Mathematics and Computational Mechanics, Other Indexed Journal, May 2019

Gazi University Journal of Science, Other Indexed Journal, May 2019

International Journal of Applied Mathematics Electronics and Computers, National Scientific Refreed Journal, February 2019

Arab Journal of Mathematical Sciences, Other Indexed Journal, October 2018

Journal of Difference Equations and Applications, SCI Journal, April 2018

## Metrics

Publication: 38

Citation (WoS): 149

Citation (Scopus): 136

H-Index (WoS): 8

H-Index (Scopus): 6

## Congress and Symposium Activities

35. Ulusal Matematik Sempozyumu, Attendee, Edirne, Turkey, 2023

IV International Conference on Mathematics and Its Applications in Science and Engineering (ICMASE 2023), Attendee, Madrid, Spain, 2023

34. Ulusal Matematik Sempozyumu, Session Moderator, İzmir, Turkey, 2022

34. Ulusal Matematik Sempozyumu, Attendee, İzmir, Turkey, 2022

1st International Symposium on Current Developments in Fundamental and Applied Mathematics Sciences, Attendee, Erzurum, Turkey, 2022

3rd INTERNATIONAL CONFERENCE ON PURE AND APPLIED MATHEMATICS (ICPAM-VAN 2020), Attendee, Van, Turkey, 2020

32. Ulusal Matematik Sempozyumu, Session Moderator, Samsun, Turkey, 2019

32. Ulusal Matematik Sempozyumu, Attendee, Samsun, Turkey, 2019

31. Ulusal Matematik Sempozyumu, Attendee, Erzincan, Turkey, 2018

International Conference on Mathematics and Mathematics Educations (ICMME-2018), Attendee, Ordu, Turkey, 2018

30. Ulusal Matematik Sempozyumu, Attendee, Ankara, Turkey, 2017

Caucasian Mathematics Conference (CMC-II), Attendee, Van, Turkey, 2017

28. Ulusal Matematik Sempozyumu, Attendee, Antalya, Turkey, 2015

## Non Academic Experience

MİLLÎ EĞİTİM BAKANLIĞI