

## Assoc. Prof. Erkan Çimen

### Personal Information

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### Education Information

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

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

Under Graduate, Eskişehir 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

Post Graduate, 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, Ofmae, 2012 - 2018

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

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

### Courses

Dif. ve Fark Denk. için İter. Yönt.-I, Post Graduate, 2017 - 2018

Diferansiyel Denklemler -I, Under Graduate, 2017 - 2018

Mathematica ve Uygulamaları-I, Post Graduate, 2017 - 2018

Diferansiyel Denklemler-II, Under Graduate, 2016 - 2017  
Dif. ve Fark Denk. için İter. Yönt.-II, Post Graduate, 2016 - 2017  
Alan Eğitiminde Araştırma Projesi, Under Graduate, 2015 - 2016  
Uzmanlık Alan Dersi, Post Graduate, 2015 - 2016  
Mezuniyet Çalışması-II, Under Graduate, 2015 - 2016  
Kısmi Tür. Dif. Denk.-II, Under Graduate, 2015 - 2016  
Mesleki İngilizce, Under Graduate, 2015 - 2016  
Mezuniyet Çalışması-I, Under Graduate, 2015 - 2016  
Uygulamalı Matematik-II, Under Graduate, 2015 - 2016  
Uygulamalı Matematik-I, Under Graduate, 2015 - 2016

## Advising Theses

Çimen E., Gecikmeli Volterra İntegro-Diferansiyel Denklemlerin Nümerik Çözümleri, Post Graduate, S.Yatar(Student), 2020  
Çimen E., Parametreye Bağlı Delay Diferansiyel Denklemlerin Yaklaşık Çözümleri, Post Graduate, M.Bayram(Student), 2017  
Çimen E., Neutral Delay Diferansiyel Denklemlerin Nümerik Çözümleri, Post Graduate, Y.Ekinci(Student), 2017  
Çimen E., Temel istatistik konularındaki bir bilgisayar yazılımının öğrencilerin başarı ve tutumlarına etkisinin incelenmesi, Post Graduate, E.Abdurrahman(Student), 2014

## Jury Memberships

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

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **A uniform numerical method for solving singularly perturbed Fredholm integro-differential problem**  
Çimen E., Çakır M.  
Computational & Applied Mathematics, vol.40, no.2, pp.1-14, 2021 (Journal Indexed in SCI Expanded)
- II. **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 (Journal Indexed in SCI Expanded)
- III. **The difference schemes for solving singularly perturbed three-point boundary value problem**  
Çakır M., Çimen E., Amiraliev G. M.  
LITHUANIAN MATHEMATICAL JOURNAL, 2020 (Journal Indexed in SCI)
- IV. **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 (Journal Indexed in SCI)
- V. **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 (Journal Indexed in SCI)
- VI. **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 (Journal Indexed in SCI)

VII. **High-order finite difference technique for delay pseudo-parabolic equations**

Amiraliyev G. M. , Çimen E., Amiralı I., Çakır M.

JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.321, pp.1-7, 2017 (Journal Indexed in SCI)

VIII. **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 (Journal Indexed in SCI)

IX. **Numerical treatment of a quasilinear initial value problem with boundary layer**

Çakır M., Çimen E., Amiralı I., Amiraliyev G. M.

INTERNATIONAL JOURNAL OF COMPUTER MATHEMATICS, vol.93, no.11, pp.1845-1859, 2016 (Journal Indexed in SCI)

X. **Explicit Finite Difference Methods for the Delay Pseudoparabolic Equations**

Amiralı I., Amiraliyev G. M. , Çakır M., Çimen E.

SCIENTIFIC WORLD JOURNAL, 2014 (Journal Indexed in SCI)

XI. **Numerical method for a singularly perturbed convection-diffusion problem with delay**

Amiraliyev G. M. , Çimen E.

APPLIED MATHEMATICS AND COMPUTATION, vol.216, no.8, pp.2351-2359, 2010 (Journal Indexed in SCI)

## **Articles Published in Other Journals**

I. **On the solution of the delay differential equation via Laplace transform**

Çimen E., Üncü Ş.

Communications in Mathematics and Applications, vol.11, no.3, pp.379-387, 2020 (Journal Indexed in ESCI)

II. **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 (International Refereed University Journal)

III. **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 (Journal Indexed in ESCI)

IV. **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 (Journal Indexed in ESCI)

V. **CONVERGENCE ANALYSIS OF APPROXIMATE METHOD FOR A SINGULARLY PERTURBED DIFFERENTIAL-DIFFERENCE PROBLEM**

Çimen E., Amiraliyev G. M.

JOURNAL OF MATHEMATICAL ANALYSIS, vol.10, no.3, pp.23-37, 2019 (Journal Indexed in ESCI)

VI. **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 (International Refereed University Journal)

VII. **A Uniform Convergent Method for Singularly Perturbed Nonlinear Differential-Difference Equation**

Çimen E., Amiraliyev G. M.

JOURNAL OF INFORMATICS AND MATHEMATICAL SCIENCES, vol.9, no.1, pp.191-199, 2017 (Journal Indexed in ESCI)

**VIII. 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 (Journal Indexed in ESCI)

**IX. Numerical method for a neutral delay differential problem**

Çimen E., Ekinci Y.

INTERNATIONAL JOURNAL OF MATHEMATICS AND COMPUTER SCIENCE, vol.12, no.1, pp.1-11, 2017 (Journal Indexed in ESCI)

**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

**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

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

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

32. Ulusal Matematik Sempozyumu, Session Moderator, 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

### **Citations**

Total Citations (WOS):59

h-index (WOS):4