

## Assoc. Prof. ÇETİN DİŞİBÜYÜK

### Personal Information

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### International Researcher IDs

ScholarID: \_jfhfsAAAAJ

ORCID: 0000-0001-5105-2255

Publons / Web Of Science ResearcherID: C-5735-2018

ScopusID: 16645314400

Yoksis Researcher ID: 22361

### Education Information

Doctorate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Matematik (Dr), Turkey 2005 - 2009

Postgraduate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), Turkey 2003 - 2005

Undergraduate, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, Turkey 1998 - 2003

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, A generalization of the rational Bezier surfaces, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Matematik (Dr), 2009

Postgraduate, Rational Bezier curves, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), 2005

### Research Areas

Natural Sciences

### Academic Titles / Tasks

Associate Professor, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2017 - Continues

Assistant Professor, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2011 - 2017

Research Assistant, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2005 - 2011

### Academic and Administrative Experience

Deputy Head of Department, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2023 - 2023

Vice Dean, Dokuz Eylul University, Fen Fakültesi, 2021 - 2022

Deputy Head of Department, Dokuz Eylul University, Fen Fakültesi, Matematik Bölümü, 2018 - 2020

## Courses

Linear Algebra, Undergraduate, 2023 - 2024, 2019 - 2020

M.Sc. Thesis, Postgraduate, 2023 - 2024, 2022 - 2023, 2013 - 2014, 2012 - 2013

Project, Undergraduate, 2023 - 2024, 2022 - 2023, 2015 - 2016, 2012 - 2013

M.Sc. Research, Postgraduate, 2023 - 2024, 2022 - 2023, 2013 - 2014, 2012 - 2013

Numerical Analysis II, Undergraduate, 2022 - 2023, 2021 - 2022, 2014 - 2015, 2012 - 2013

Mathematical Methods in Computer Aided Geometric Design, Undergraduate, 2023 - 2024, 2022 - 2023, 2019 - 2020

Numerical Analysis I, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2014 - 2015, 2013 - 2014, 2012 - 2013

Applied Mathematics, Postgraduate, 2023 - 2024, 2022 - 2023, 2019 - 2020

M.Sc. Seminar, Postgraduate, 2022 - 2023, 2013 - 2014

Discrete MATHEMATICS, Undergraduate, 2022 - 2023, 2018 - 2019, 2014 - 2015, 2013 - 2014

Graduation Project, Undergraduate, 2023 - 2024

Ph.D. Thesis, Doctorate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

Ph.D. Research, Doctorate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Calculus II, Undergraduate, 2021 - 2022

Calculus II, Undergraduate, 2020 - 2021

Calculus I, Undergraduate, 2020 - 2021

Matematik III, Undergraduate, 2018 - 2019, 2014 - 2015, 2012 - 2013

Diferansiyel Denklemler Teorisine Giriş, Undergraduate, 2019 - 2020

Differential Equations and Linear Algebra, Undergraduate, 2019 - 2020

Mathematical Methods, Postgraduate, 2018 - 2019

Numerical and Approximate Methods, Postgraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

NUMERICAL and APPROXIMATE METHODS, Postgraduate, 2018 - 2019

Diferansiyel Denklemler, Undergraduate, 2018 - 2019

Matematik III, Undergraduate, 2018 - 2019

Calculus IV, Undergraduate, 2017 - 2018, 2015 - 2016

Matematik II, Undergraduate, 2016 - 2017

NUMERICAL ANALYSIS II, Undergraduate, 2016 - 2017

Sayısal Analiz, Undergraduate, 2016 - 2017

NUMERICAL ANALYSIS I, Undergraduate, 2017 - 2018

APPLIED MATHEMATICS, Postgraduate, 2017 - 2018

Matematik I, Undergraduate, 2016 - 2017

Kısmi Türevli Denklemler, Undergraduate, 2017 - 2018

Matematik III, Undergraduate, 2017 - 2018, 2016 - 2017

DIFERENTIAL EQUATIONS II, Undergraduate, 2015 - 2016, 2012 - 2013

DIFERENTIAL EQUATIONS I, Undergraduate, 2016 - 2017, 2012 - 2013

Mathematical Aspects of Geometric Modelling, Doctorate, 2015 - 2016

MATEMATİK IV, Undergraduate, 2015 - 2016

Diferential Equations I, Undergraduate, 2015 - 2016, 2012 - 2013

Interpolation and Approximation, Doctorate, 2015 - 2016

MATEMATİK III, Undergraduate, 2015 - 2016

DISCRETE MATHEMATICS, Undergraduate, 2014 - 2015

Matematik II, Undergraduate, 2014 - 2015

Matematik I, Undergraduate, 2015 - 2016

Technical English I, Undergraduate, 2014 - 2015

CALCULUS III, Undergraduate, 2014 - 2015, 2012 - 2013  
Calculus III, Undergraduate, 2014 - 2015  
TECHNICAL ENGLISH I, Undergraduate, 2014 - 2015  
CALCULUS II, Undergraduate, 2013 - 2014, 2012 - 2013, 2011 - 2012  
Matematik II, Undergraduate, 2013 - 2014  
CALCULUS I, Undergraduate, 2013 - 2014, 2011 - 2012  
Calculus II, Undergraduate, 2012 - 2013, 2011 - 2012  
MATEMATİK I, Undergraduate, 2013 - 2014  
Calculus I, Undergraduate, 2013 - 2014, 2011 - 2012  
APPLIED MATHEMATICS, Postgraduate, 2013 - 2014  
Diferential Equations II, Undergraduate, 2012 - 2013  
MATEMATİK I, Undergraduate, 2013 - 2014  
MATEMATİK I, Undergraduate, 2012 - 2013  
Mathematical Methods for Statistics, Postgraduate, 2012 - 2013  
MATH. MODELING AND ITS PHILOSOPHY, Undergraduate, 2011 - 2012  
Calculus I, Undergraduate, 2011 - 2012

## Advising Theses

Dişibüyük Ç., Polinom olmayan B-spline fonksiyonları, Doctorate, F.ZÜRNACI(Student), 2022  
DİŞİBÜYÜK Ç., Q-Eulerian polinomları ve B-spline fonksiyonları, Postgraduate, Ş.ULUTAŞ(Student), 2014

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

- I. **A B-spline approach to q-Eulerian polynomials**  
Dişibüyük Ç., Ulutaş S.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.366, 2020 (SCI-Expanded)
- II. **An alternative distribution function estimation method using rational Bernstein polynomials**  
Erdogan M. S., Dişibüyük Ç., Ege Oruç Ö.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.353, pp.232-242, 2019 (SCI-Expanded)
- III. **Non-polynomial divided differences and B-spline functions**  
Zürnacı Yetiş F., Dişibüyük Ç.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.349, pp.579-592, 2019 (SCI-Expanded)
- IV. **A unified approach to non-polynomial B-spline curves based on a novel variant of the polar form**  
Dişibüyük Ç., Goldman R.  
CALCOLO, vol.53, no.4, pp.751-781, 2016 (SCI-Expanded)
- V. **Extending fundamental formulas from classical B-splines to quantum B-splines**  
Budakçı G., Dişibüyük Ç., Goldman R., Oruç H.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.282, pp.17-33, 2015 (SCI-Expanded)
- VI. **A unifying structure for polar forms and for Bernstein Bézier curves**  
Dişibüyük Ç., Goldman R.  
Journal of Approximation Theory, vol.192, pp.234-249, 2015 (SCI-Expanded)
- VII. **A functional generalization of the interpolation problem**  
Dişibüyük Ç.  
Applied Mathematics and Computation, vol.256, pp.247-251, 2015 (SCI-Expanded)
- VIII. **Generating functions for B-Splines with knots in geometric or affine progression**  
Dişibüyük Ç., Budakçı G., Goldman R., Oruç H.  
CALCOLO, vol.51, no.4, pp.599-613, 2014 (SCI-Expanded)
- IX. **TENSOR PRODUCT q-BERNSTEIN POLYNOMIALS**

Dişibüyük Ç., Oruç H.

BIT NUMERICAL MATHEMATICS, vol.48, no.4, pp.689-700, 2008 (SCI-Expanded)

X. **A generalization of rational Bernstein-Bezier curves**

Dişibüyük Ç., Oruç H.

BIT NUMERICAL MATHEMATICS, vol.47, no.2, pp.313-323, 2007 (SCI-Expanded)

## Articles Published in Other Journals

I. **Homogeneous  $q$ -blossoming and Bézier curves**

DİŞİBÜYÜK Ç.

Montes Taurus Journal of Pure and Applied Mathematics, vol.4, no.2, pp.86-102, 2022 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

I. **Non-polynomial Divided Differences and Generalized Taylor Series**

Zürnacı F., Dişibüyük Ç.

Approximation Theory 16, Tennessee, United States Of America, 19 - 22 May 2019

II. **Generalized Taylor Series**

Zürnacı F., Dişibüyük Ç.

2019 AWM Research Symposium, Texas, United States Of America, 6 - 07 April 2019

III. **Non Polynomial Divided Differences and B-Splines**

Zürnacı F., Dişibüyük Ç.

Second Conference on Subdivision, Geometric and Algebraic Methods, Isogeometric Analysis and Refinability in Italy, Latina, Italy, 17 - 21 September 2017

IV. **Non Polynomial B-splines**

Zürnacı F., Dişibüyük Ç.

The 8th International Workshop on Differential Equations and Applications, Aydın, Turkey, 2 - 04 June 2017

V. **A B Spline Approach to  $q$  Eulerian Polynomials**

Dişibüyük Ç., Ulutaş Ş.

The 28th International Conference of Jangeon Mathematical Society, Antalya, Turkey, 15 - 19 May 2015

VI. **A Unifying Functional Structure for Polar Forms and for Functional Bernstein Bézier Curves**

Dişibüyük Ç., Goldman R.

8th international Conference "Curves and Surfaces", Paris, France, 12 - 18 June 2014

VII. **Extending Fundamental Formulas from Classical B-splines to  $q$ -B-splines**

Budakçı G., Dişibüyük Ç., Goldman R., Oruç H.

14th International Conference in Approximation Theory, Texas, United States Of America, 7 - 10 April 2013, pp.4

VIII. **On de Casteljau Type Algorithms**

Dişibüyük Ç., Oruç H.

Eighth International Conference on Mathematical Methods for Curves and Surfaces, Oslo, Norway, 28 June - 03 July 2012

IX. **On de Casteljau Type Algorithms**

Dişibüyük Ç., Oruç H.

2nd International Symposium on Computing in Science and Engineering (ISCSE 2011), İzmir, Turkey, 1 - 04 June 2011, vol.2, pp.1266-1271

X. **Tensor Product  $q$  Bernstein Bézier Patches**

Dişibüyük Ç., Oruç H.

Fourth Conference on Numerical Analysis and Applications, Burgas, Bulgaria, 16 - 20 June 2008, vol.5434, pp.265-272

XI. **Tensor Product  $q$ -Bernstein Bezier Patches**

DİŞİBÜYÜK Ç., ORUÇ H.

4th International Conference on Numerical Analysis and Applications, Lozenetz, Bulgaria, 16 - 20 June 2008,  
vol.5434, pp.265-272

**XII. A Generalization of Rational Bézier Curves**

Dişibüyük Ç., Oruç H.

Workshop on Numerical Methods for Differential Equations, İzmir, Turkey, 12 May 2006

## **Mobility Activity**

Post Doc, Post Doc, Rice University, United States Of America, 2013 - 2013

## **Metrics**

Publication: 23

Citation (WoS): 73

Citation (Scopus): 86

H-Index (WoS): 5

H-Index (Scopus): 5

## **Congress and Symposium Activities**

The 8th International Workshop on Differential Equations and Applications, Attendee, Aydın, Turkey, 2017

The 28th International Conference of Jangjeon Mathematical Society, Attendee, Antalya, Turkey, 2015

8th international Conference "Curves and Surfaces", Attendee, Paris, France, 2014

Eighth International Conference on Mathematical Methods for Curves and Surfaces, Attendee, Oslo, Norway, 2012

2nd International Symposium on Computing in Science and Engineering (ISCSE 2011), Attendee, İzmir, Turkey, 2011

4th International Conference on Numerical Analysis and Applications, Attendee, Burgas, Bulgaria, 2008

Workshop on Numerical Methods for Differential Equations, Attendee, İzmir, Turkey, 2006