

Süleyman CENGİZCİ, Ph.D. Candidate in Scientific Computing

Doctoral Student at Middle East Technical University, IAM, Scientific Computing

Lecturer of ABU, Department Computer Programming

Office: ABU A2-33, Üniversite Cad. No: 2, 07190, Döşemealtı / Antalya / TURKEY

Office Phone: +90 (242) 245 02 10 (#2210)

e-mail:

suleyman.cengizci [a] antalya[dot]edu[dot]tr

cengizci.suleyman [a] metu[dot]edu[dot]tr



Education:

- **Ph.D. in Applied Mathematics** (2014 -2019(expected)) [Middle East Technical University, Institute of Applied Mathematics](#), Department of Scientific Computing, Ankara/TURKEY

Specialization: Scientific Computing, Numerical Solutions of Ordinary and Partial Dif. Eq., Finite Element Methods, Hypersonic Flight Dynamics

Thesis: Numerical Solutions of Navier - Stokes Equations under Hypersonic Reactive Flow Conditions

Thesis Advisor: Prof. Ömür Uğur

- **M.S in Applied Mathematics** (August, 2014) [Nevşehir Hacı Bektaş Veli University](#) (Middle East Technical University- Engineering Sciences, Ankara), Graduate School of Natural and Applied Sciences, Nevşehir/TURKEY

Specialization: Applied Mathematics (Asymptotic Methods, Singular Perturbation Problems)

: Spectral Methods ([Middle East Technical University, Department of Engineering Sciences](#))

Thesis: Asymptotic Analysis of Singular Perturbation Problems

Thesis Advisor: Dr. Mehmet Tarık ATAY

- **Certificate in Mathematical Education** (June 2014) *Pedagogical Formation*, [Akdeniz University](#), Faculty of Education

- **B.S in Mathematics** (June, 2012) [Ömer Halisdemir University \(Niğde\)](#), Department of Mathematics
Thesis: Dual Spaces

Thesis Advisor: Dr. Ahmet EROĞLU
- **High School** (June, 2007) [Metin-Nuran Çakallıklı Anadolu Lisesi \(Antalya\)](#), Natural Sciences
- **Primary School** (June, 2003) [Başöğretmen Atatürk İlköğretim Okulu \(Antalya\)](#)

Research Interests:

- Singular Perturbation Problems
- Asymptotic Methods
- Numerical Solutions of ODE's and PDE's
- Numerical Linear Algebra
- Finite Element Methods (FEM)
- Scientific Computing
- Scientific Programming
- Hypersonic Fluid Dynamics

Languages:

- Fluent in English and Turkish (native)
- Beginner in German

Professional Experience:

- **Lecturer**, December 2017 - onwards
Computer Programming, [Antalya Bilim University](#), Antalya/ Turkey
- **Research Assistant**, September 2014 – December 2017
Department of Economics, [Antalya Bilim University](#), Antalya/ Turkey
- **Trainee Teacher**, January 2014- June 2014
[Hüsniye Özdilek Mesleki ve Teknik Anadolu Lisesi](#), Antalya/ Turkey
Taught: Mathematics
- **Trainee Teacher**, June 2013- May 2014
Antalya Vahap Yılmaz Private Teaching Inst., Antalya/Turkey
Courses Taught: Mathematics(High School)
: Geometry(High School)

Visiting Research Institutions:

1. **Visiting Researcher**, Department of Computing + Mathematical Sciences, California Institute of Technology([CALTECH](#)), USA, Invited to research
Supervisor: [Prof. Oscar P. Bruno](#)
2. **Visiting Staff**, [The Interdisciplinary Center for Scientific Computing \(IWR\), Ruprecht-Karls University of Heidelberg](#), Germany, (8-11 May, 2017)
Invited by [Prof. Anna Marciniak-Czochra](#)

Courses:

- I. **Antalya Bilim University** (as T.A, 2014-2017):
 - Calculus for Social Sciences I (x3)
 - Calculus for Social Sciences II (x3)
 - Linear Algebra (x1)
 - Mathematical Economics (x1)
- II. **Antalya Bilim University** (as Lecturer, 2017-)
 - Introduction to Linear Algebra (x1)
 - Information Technologies (x1)
 - Calculus for Social Sciences (x1)
 - Mathematics I (x1)

Books:

1. **Cengizci S.**, Mühendislik Bilimleri için Bilimsel Hesaplama ve Optimizasyon, (in Turkish, Scientific Computing and Optimization for Engineering Sciences), (in progress)
2. **Cengizci S.**, Teori ve Uygulamalarla Lineer Cebir, (in Turkish, Linear Algebra with Theory and Applications), (in progress)

Publications:

1. (2015) **Cengizci S.**, Eryilmaz A., "Successive Complementary Expansion Method for solving Troesch's Problem as a Singular Perturbation Problem", *International Journal of Engineering Mathematics* (published) [doi:10.1155/2015/949463](#)
2. (2016) **Cengizci S.**, Atay M. T., Eryilmaz A., "A uniformly valid approximation algorithm for singularly perturbed two-point boundary value problems in nonlinear ordinary differential equations" *SpringerPlus* (published) [doi: 10.1186/s40064-016-1865-6](#) (SCI-E)

3. (2016) Atay M. T., **Cengizci S.**, Eryilmaz A., "SCEM Approach for Singularly Perturbed Linear Turning Mid-Point Problems with an Interior Layer", *New Trends in Mathematical Sciences* (published) doi: 10.20852/ntmsci.2016115661
4. (2017) **Süleyman Cengizci**, "An Asymptotic-Numerical Hybrid Method for Solving Singularly Perturbed Linear Delay Differential Equations," *International Journal of Differential Equations*, vol. 2017, Article ID 7269450, 8 pages, 2017. doi:10.1155/2017/7269450 (published) (ESCI)
5. (2017) **Cengizci S.**, Atay M. T., "An asymptotic approach for singularly perturbed turning point problems with dual layers", *Filomat* (under review) (SCI-E)
6. (2017) **Cengizci S.**, "Comparison of MMAE and SCEM for solving singularly perturbed linear boundary layer problems", *Filomat* (under review) (SCI-E)
7. (2018) **Cengizci S.**, "A hybrid method for solving singularly perturbed differential equations with fractional order" *Communications in Nonlinear Science and Numerical Simulation* (in progress) (SCI)
8. (2017) **Cengizci S.**, Atay M. T., "SCEM approach for a coupled system of singularly perturbed reaction-diffusion equations", *Applied Mathematics and Computation* (under review) (SCI-E)
9. (2017) **Cengizci S.**, "On an efficient method for solving singularly perturbed nonlinear difference-differential equations", *Communications in Nonlinear Science and Numerical Simulation* (in progress) (SCI)
10. (2018) **Cengizci S.**, "Uniformly valid hybrid method scheme for solving singularly perturbed parabolic partial differential equations", (in progress)
11. (2017) **Cengizci S.**, "A hybrid method for solving a system of singularly perturbed two-point convection-diffusion equations", *Differential Equations and Dynamical Systems* (under review) (E-SCI)
12. (2018) **Cengizci S.**, "On an efficient hybrid method for a system of singularly perturbed two-point boundary value problems with turning point", (in progress)
13. (2018) **Cengizci S.**, "A finite element based hybrid method for solving singularly perturbed nonlinear differential equations", (in progress)
14. (2018) **Cengizci S.**, "An asymptotic-numerical hybrid scheme for solving singularly perturbed difference-differential equations exhibiting interior layer behavior", (in progress)
15. (2018) **Cengizci S.**, "Numerical experiments on singularly perturbed one-dimensional Bratu problem", (in progress)

Conference Presentations:

1. (2015) **Cengizci S.**, Atay M. T., Eryilmaz A., "A uniformly valid approximation algorithm for singularly perturbed two-point boundary value problems in nonlinear ordinary differential equations", International Conference on Advancements in Mathematical Sciences, Antalya, Turkey.

2. **(2016) Cengizci S.,** Eryilmaz A., “*A hybrid approach for solving singularly perturbed turning point problems exhibiting dual layers*”, International Conference on Mathematics and Mathematics Education (ICMME-2016), Firat University, Elazığ, Turkey, 12-14 May 2016.
3. **(2017) Cengizci S.,** “*On an efficient hybrid method for solving singularly perturbed difference-differential equations exhibiting turning layer behavior*”, (ICCESEN 2017) - 4th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 4-8 October 2017
4. **(2017) Cengizci S.,** “*On an asymptotic-numerical hybrid method for solving singularly perturbed nonlinear delay differential equations*”, (ICCESEN 2017) - 4th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 4-8 October 2017
5. **(2017) Cengizci S.,** “*SCEM for solving a system of singularly perturbed convection-diffusion equations*”, International Conference On Applied Analysis and Mathematical Modelling (ICAAMM-2017), Istanbul, Turkey, 3-7 July 2017.
6. **(2017) Cengizci S.,** “*On an asymptotic-numerical hybrid scheme for solving singularly perturbed turning point problems with dual layers*”, International Conference On Applied Analysis and Mathematical Modelling (ICAAMM-2017), Istanbul, Turkey, 3-7 July 2017.
7. **(2018) Cengizci S.,** “*Some comparisons between MMAE and SCEM for solving singularly perturbed linear problems*”, *The Third International Conference on Computational Mathematics and Engineering Sciences (CMES-2018)*, May 4-6, 2018, Girne, Cyprus.
8. **(2018) Cengizci S.,** “*A hybrid simulation for a system of singularly perturbed two-point reaction-diffusion equations*”, *The Third International Conference on Computational Mathematics and Engineering Sciences (CMES-2018)*. May 4-6, 2018, Girne, Cyprus.

Referee/Reviewer:

- Neural Processing Letters (Springer/SCI-E) x 3
- Mathematical Modelling and Analysis (Taylor & Francis / SCI-E) x 1
- Mathematical Sciences Letters (Natural Sciences Publishing) x 7
- British Journal of Mathematics & Computer Science x 1
- Advances in Research x 1
- Journal of Advances in Mathematics and Computer Science x 2
- Asian Research Journal of Mathematics x 1

Projects:

- “*Numerical Solutions of Navier - Stokes Equations for Hypersonic Speed Conditions*”, 2214/A, The Scientific and Technological Research Council of Turkey ([TÜBİTAK](#))

Editorial Duties:

- [AZE International Journal of Mathematics and Informatics](#)

Computer Skills:

Windows, Linux (Ubuntu), Microsoft Office Pack, MATLAB, FEniCS, Scientific Workplace, LaTeX, C++ Programming Language, Fortran Programming Language, Python Programming Language

Personal:

Place and date of birth: Antalya; July 4, 1989.

Country of Citizenship: Turkey

Marital Status: Unmarried

Driving Licence: B, 2008

Professional Seminars & Workshops & Boards:

(2011) Statistical Methods for the Service Quality Measurement, Nigde Ömer Halisdemir University.

Hobbies:

Swimming, Fishing, Automobiles (Combustion Engines), Space Sciences, Mathematics, Books (Scientific)

Memberships:

- [International Association of Engineers \(IAENG\)](#)

References:

➤ **Prof. Ömür UĞUR**

Middle East Technical University, Head of the
Department of Scientific Computing

Phone: +90 (312) 210 5617

e-mail: [ougur \[at\] metu.edu.tr](mailto:ougur[@]metu.edu.tr)

[web](#)

➤ **Prof. Onur KÖKSOY**

Ege University, Head of the Department of
Statistics

Phone: +90 (554) 292 77 94

e-mail: [onur.koksoy \[at\] ege.edu.tr](mailto:onur.koksoy [at] ege.edu.tr)

[web](#)

➤ **Prof. Gerhard Wilhelm WEBER**

Poznan University of Technology, Chair of
Marketing and Economic Engineering

e-mail: [gerhard-wilhelm.weber \[at\] put.poznan.pl](mailto:gerhard-wilhelm.weber [at] put.poznan.pl)
[web](#)

➤ **Asst. Prof. Mehmet Tarık ATAY**

Abdullah Gul University, Department of
Mechanical Engineering

e-mail: [mehmettarik.atay \[at\] agu.edu.tr](mailto:mehmettarik.atay [at] agu.edu.tr)

Phone: +90 (554) 292 77 94

[web](#)

➤ **Asst. Prof. Levent KUTLU**

Georgia Institute of Technology, School of
Economics

e-mail: [levent.kutlu \[at\] econ.gatech.edu](mailto:levent.kutlu [at] econ.gatech.edu)

[web](#)

➤ **Asst. Prof. Nurettin IRMAK**

*Ömer Halisdemir University, Department of
Mathematics*

e-mail: nirmak [at] ohu.edu.tr

[web](#)

Scopus ID: 57151353400

Orcid ID: orcid.org/0000-0002-4345-1253

[ResearchGate](#)

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