

Süleyman CENGİZCİ, Ph.D. Candidate in Scientific Computing

*Doctoral Student at Middle East Technical University, **IAM**, Scientific Computing
Research & Teaching Assistant of **AIU**, Department of Economics*

Office: AIU A2-63, Üniversite Cad. No: 2, 07190, Döşemealtı / Antalya / TURKEY

Office Phone: +90 (242) 245 01 86 (#2186)

e-mail:

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

scengizci [a] hotmail[dot]com

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



Education:

- **Ph.D. in Applied Mathematics** (2014 -2018(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
Thesis: Numerical Solutions of Navier - Stokes Equations
Thesis Advisor: Assoc. Prof. Ömür Uğur
- **M.S in Applied Mathematics** (August, 2014) **Nevşehir Hacı Bektas 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. Aytekin ERYILMAZ and Dr. M. 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

Research Interests:

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

Languages:

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

Professional Experience:

- **Research Assistant**, September 2014 - onwards
Department of Economics, [Antalya International University](#), Antalya/ Turkey
- **Trainee Teacher**, January 2014- June 2014
Antalya Hüsniye Özdilek Vocational High School for Trade, Antalya/Turkey
Courses 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 Mathematics, Georgia Institute of Technology ([Georgia Tech](#)), USA
(July, 2017-December, 2017) Invited to research
Supervisor: Prof. Yingjie Liu (<http://people.math.gatech.edu/~yingjie/>)

Courses:

- I. [Antalya International University](#) (as T.A):
 - Calculus for Social Sciences I
 - Calculus for Social Sciences II

- Linear Algebra
- Mathematical Economics

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), (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", *International Journal of Computational Methods* (under review) (SCI-E)
6. (2017) **Cengizci S.**, "A Uniformly Valid Approximation Scheme for Singularly Perturbed Two-point Boundary Value Problems in Linear ODE's", *Indian Journal of Pure and Applied Mathematics* (under review) (SCI-E)
7. (2017) **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.**, "Uniformly valid hybrid method scheme for solving singularly perturbed parabolic partial differential equations", (in progress)
10. (2017) **Cengizci S.**, "A hybrid method for a system of singularly perturbed two-point convection-diffusion equations", *Computational and Applied Mathematics* (under review) (SCI-E)
11. (2017) **Cengizci S.**, "On an efficient hybrid method for a system of singularly perturbed two-point boundary value problems with turning point", (in progress)
12. (2017) **Cengizci S.**, "A finite element based hybrid method for solving singularly perturbed nonlinear differential equations", (in progress)

13. (2017) **Cengizci S.**, “An asymptotic-numerical hybrid scheme for solving singularly perturbed difference-differential equations exhibiting interior layer behavior”, (in progress)
14. (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)

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 linear delay differential equations”, International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM 2017), Kusadasi, Aydın, Turkey, 11-15 May 2017.
4. (2017) **Cengizci S.**, “An asymptotic-numerical hybrid scheme for solving singularly perturbed turning point problems with dual layers”, International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM 2017), Kusadasi, Aydın, Turkey, 11-15 May 2017.
5. (2017) **Cengizci S.**, “SCEM for solving a system of singularly perturbed reaction-diffusion equations”, International Conference on Mathematics and Engineering (ICOME-2017), Istanbul, Turkey, 10-12 May 2017.
6. (2017) **Cengizci S.**, “On an efficient hybrid method for solving system of singularly perturbed ODE’s exhibiting turning point behavior”, 3rd International Researchers, Statisticians and Young Statisticians Congress (IRSYSC-2017), Konya, Turkey on 24-26 May, 2017.
7. (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.
8. (2017) **Cengizci S.**, “On an efficient method for solving system of singularly perturbed delay differential equations”, Caucasian Mathematics Conference (CMC-II), Van, Turkey, August 22-24, 2017.
9. (2017) **Cengizci S.**, Kiroğlu E., “ On an asymptotic-numerical hybrid method for solving singularly perturbed nonlinear delay equations”, International Conference on Mathematics and Mathematics Education (ICMME-2017), Harran University, Şanlıurfa, 11-13 May 2017.
10. (2017) **Cengizci S.**, Kiroğlu E., “ On an efficient hybrid method for solving singularly perturbed difference-differential equations exhibiting turning layer behavior”, International Conference on Mathematics and Mathematics Education (ICMME-2017), Harran University, Şanlıurfa, 11-13 May 2017.

Referee/Reviewer:

- Neural Processing Letters (Springer/SCI-E)

Computer Skills:

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

Hobbies:

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

References:

- **Prof. Gerhard-Wilhelm WEBER**
Middle East Technical University, Institute of Applied Mathematics
Phone: +90 (312) 210 56 52
e-mail: gweber [at] metu.edu.tr
<http://iam.metu.edu.tr/gerhard-wilhelm-webercv>
- **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
http://fen.ege.edu.tr/istatistik/tr/personel_profil.php?bno=4
- **Assoc. Prof. Ömür UĞUR**
Middle East Technical University, Head of the Department of Scientific Computing
Phone: +90 (312) 210 56 17
e-mail: ougur [at] metu.edu.tr
<http://ougur.iam.metu.edu.tr/>
- **Asst. Prof. Mehmet Tarık ATAY**
Abdullah Gul University, Department of Mechanical Engineering
e-mail: mehmettarik.atay [at] agu.edu.tr
Phone: +90 (554) 292 77 94
<http://me.agu.edu.tr/akademik-kadr>

➤ **Asst. Prof. Levent KUTLU**

Georgia Institute of Technology, School of Economics

e-mail: levent.kutlu [at] econ.gatech.edu

<http://www.econ.gatech.edu/people/person/751891ea-126d-5cb2-a202-0dda52841bb3>

Scopus ID: 57151353400

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

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