

Haydar ALICI

Assoc. Prof. Dr.

Harran University,
Department of Mathematics,
63290, Şanlıurfa, TURKEY
☎ +90 (505) 242 63 08
☎ +90 414 318 35 99
✉ haydara@harran.edu.tr

Last Updated: October 28, 2020

Education

- 2004–2010 **PhD**, *Middle East Technical University*, Department of Mathematics.
Thesis Title A General Pseudospectral Formulation of a Class of Sturm-Liouville Systems.
Supervisor Prof. Dr. Hasan Taşeli
- 2001–2003 **MSc**, *Middle East Technical University*, Department of Mathematics.
Thesis Title Pseudospectral Methods for Differential Equations: Application to the Schrödinger Type Eigenvalue Problems.
Supervisor Prof. Dr. Hasan Taşeli
- 1996–2001 **BSc**, *Middle East Technical University*, Department of Mathematics Education.
- 1996–2001 **Double Major**, *Middle East Technical University*, Department of Mathematics.

Employment History

- April 2016 – **Assoc. Prof. Dr.**, *Harran University*, Department of Mathematics, 63290, Şanlıurfa, TURKEY.
- 2011 – 2016 **Assist. Prof. Dr.**, *Harran University*, Department of Mathematics, 63290, Şanlıurfa, TURKEY.
- 2010 – 2011 **Dr.**, *Harran University*, Department of Mathematics, 63290, Şanlıurfa, TURKEY.
- 2005 – 2010 **Res. Asst.**, *Middle East Technical University*, Department of Mathematics, 06531, Ankara, TURKEY.
- 2002 – 2005 **High School Mathematics Teacher**, *Turkish Ministry of National Education*, Ankara.

Awards & fellowships

- July 2016 **Postdoctoral fellowship**, *The Scientific and Technological Research Council of Turkey (TUBITAK 2219)*, Purdue University, IN, USA.
–July 2017

- Feb. 2005 **Doctoral fellowship**, *The Scientific and Technological Research Council of Turkey (TUBITAK 2211/A)*, Middle East Technical University, Ankara, TURKEY.
- Feb. 2009
- July 2008 **Financial support for scientific activities abroad**, *The Scientific and Technological Research Council of Turkey (TUBITAK 2224/A)*, 13th International Congress on Computational and Applied Mathematics, July 7–11, 2008, Ghent University, Ghent, BELGIUM.

Participated Scientific Activities

1. 2nd Ankara Mathematics Days, June 14–15, 2007, Atılım University, Ankara, TURKEY.
2. 6th International ISAAC (International Society for Analysis, its Applications and Computation) Congress, August 13-18, 2007, Middle East Technical University, Ankara, TURKEY.
3. 13th International Congress on Computational and Applied Mathematics, July 7–11, 2008, Ghent University, Ghent, BELGIUM.
 - Pseudospectral methods for solving an equation of hypergeometric type with a perturbation.
4. 4th Ankara Mathematics Days, June 4–5, 2009, Middle East Technical University, Ankara, TURKEY.
5. 24th National Mathematics Symposium, September 7–10, 2011, Uludağ University, Bursa, TURKEY.
 - Unification of Stieltjes-Calogero type relations for the zeros of classical orthogonal polynomials.
6. 26th National Mathematics Symposium, September 4–7, 2013, Dicle University, Diyarbakır, TURKEY.
 - Laguerre pseudospectral methods for the radial Schrödinger equation.
7. International Conference on Current Trends and Challenges in Numerical Solution of Partial Differential Equations, July 7-8, 2017, Purdue University, IN, USA
8. 30th National Mathematics Symposium, September 6–9, 2017, Atılım University, Ankara, TURKEY.
 - Highly Accurate Pseudospectral Approximations of the Prolate Spheroidal Wave Equation for Any Bandwidth Parameter and Zonal Wavenumber.

Refereeing for Scientific Journals

- Advances in Difference Equations
- Computers & Mathematics with Applications
- Computer Physics Communications
- Çankaya University Journal of Science and Engineering
- Hacettepe Journal of Mathematics and Statistics
- Journal of Computational and Applied Mathematics

- Turkish Journal of Mathematics and Computer Science

Supervision

- M. Salih DAL **MSc**, *Numerical solution of the angular Mathieu equation by Chebyshev pseudospectral methods*, Department of Mathematics, Harran University, 63290, Şanlıurfa, TURKEY, (December 2017).
- Hülya AYTAR **MSc**, *Numerical solution of the spheroidal wave equation by using pseudospectral methods*, Department of Mathematics, Harran University, 63290, Şanlıurfa, TURKEY, (December 2017).

Language Skills

- Turkish: Native speaker
- English: Advanced (KPDS-2010: 94/100 pts., YDS-2013: 81.25/100 pts., YDS-2018: 85/100)

Computer Skills

- Office programs, L^AT_EX
- Fortran, Matlab, GNU Octave, Mathematica

Publications

- [12] **H. Alici**, *Some new elementary cases of Gauss hypergeometric function*, (Submitted) .
- [11] **H. Alici**, **T. Tanriverdi**, *General solution of the Schrödinger equation for some hyperbolic potentials*, *Few-Body Syst.*, 61 (4), (2020), 1–11 .
- [10] **H. Alici**, **T. Tanriverdi**, *General solution of the Schrödinger equation for some trigonometric potentials*, *J. Math. Chem.*, 58 (5), (2020), 1041–1057.
- [9] **H. Alici**, *The Laguerre Pseudospectral Method for the Two-Dimensional Schrödinger Equation with Symmetric Nonseparable Potentials*, *Hacet. J. Math. Stat.*, 49 (2), (2020), 539–552.
- [8] **H. Alici**, **J. Shen**, *Highly efficient and accurate spectral approximation of the angular Mathieu equation for any parameter values q* , *J. Math. Study*, 51 (2), (2018), 131–149.
- [7] **H. Alici**, **J. Shen**, *Highly Accurate Pseudospectral Approximations of the Prolate Spheroidal Wave Equation for Any Bandwidth Parameter and Zonal Wavenumber*, *J. Sci. Comput.*, 71 (2), (2017), 804–821.
- [6] **H. Alici**, **H. Taşeli**, *Unification of Stieltjes-Calogero type relations for the zeros of classical orthogonal polynomials*, *Math. Method. Appl. Sci.*, 38 (14), (2015), 3118–3129.
- [5] **H. Alici**, *The Hermite Pseudospectral Method for the Two-Dimensional Schrödinger Equation with Nonseparable Potentials*, *Comput. Math. Appl.*, 69 (6), (2015), 466–477.

- [4] **H. Alici, H. Taşeli**, *Laguerre pseudospectral methods for the radial Schrödinger equation*, *Appl. Numer. Math.*, 87, (2015), 87–99.
- [3] **H. Alici, H. Taşeli**, *Pseudospectral methods for solving an equation of hypergeometric type with a perturbation*, *J. Comput. Appl. Math.*, 234, (2010), 1140–1152.
- [2] **H. Taşeli, H. Alici**, *The Laguerre pseudospectral method for the reflection symmetric Hamiltonians on the real line*, *J. Math. Chem.*, 41, (2007), 407–416.
- [1] **H. Taşeli, H. Alici**, *The scaled Hermite-Weber basis in the spectral and pseudospectral pictures*, *J. Math. Chem.*, 38, (2005), 367–378.