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Fatma Sidre Oglakkaya

Personal Information

Surname, Name: Oglakkaya, Fatma Sidre

Nationality: Turkish (TC)

Date and Place of Birth: 19 August, Konya

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Education

2012-2018, Middle East Technical University

PhD. Department of Mathematics

2007-2010, Selcuk University

MSc. Mathematical Education

2003-2007, Selcuk University

BSc. Mathematical Education

1999-2002, Meram Anatolian High School

Professional Experience

2022-Current, Department of Mathematics, Osmaniye Korkut Ata University

Assistant Professor

2018-2022, Department of Mathematics, Osmaniye Korkut Ata University

Research Assistant, PhD

2012-2018, Department of Mathematics, Middle East Technical University

Teaching and Research Assistant

2010-2012, Department of Mathematics, Osmaniye Korkut Ata University

Research Assistant

2007-2010 Ministry of Education

Elementary and High School Mathematics Teacher

Skills

Language

- English (Advanced)
- German (Beginner)

Computer software

- Office Programs
- MATLAB
- Python (Beginner)
- LATEX
- MAPLESOFT
- Visual Basic

Publications

International Journal Publications

- F.S. Oğlakkaya and C. Bozkaya (2016). MHD natural convection in a semi-annulus enclosure filled with water-based nanofluid using DRBEM. *Engineering Analysis with Boundary Elements*(SCIE, Q1), 71, 151-163.
- F.S. Oğlakkaya and C. Bozkaya (2018). Unsteady MHD mixed convection flow in a lid-driven cavity with a heated wavy wall. *International Journal of Mechanical Sciences* (SCIE, Q1), 148, 231-245.

International Conference Proceedings

- F.S. Oğlakkaya and C. Bozkaya (2015). Mixed convection flow in a lid-driven cavity with hydromagnetic effect using DRBEM. Proceedings of Advances in Boundary Element and Meshless Techniques XVI-BETEQ 2015, Valencia, Spain (July 6-8), 44-49.
- F.S. Oğlakkaya and C. Bozkaya (2016). DRBEM solution to ferrofluid flow and heat transfer in semi-annulus enclosure in the presence of magnetic field. Proceedings of Advances in Boundary Element and Meshless Techniques XVII-BETEQ 2016, Ankara, Turkey (July 11-13), 107-112.
- F.S. Oğlakkaya and C. Bozkaya (2016). A numerical simulation of non-uniform magnetic field effect on ferrofluid flow in a half-annulus enclosure with sinusoidal hot wall. Proceedings of International Conference of Numerical Analysis and Applied Mathematics XIV-ICNAAM 2016, Rhodes, Greece, (September 19-25), 560067-(1-4).
- F.S. Oğlakkaya and C. Bozkaya (2017). MHD combined convection flow in a lid-driven cavity with sinusoidal wavy wall. Proceedings of The Eleventh UK Conference on Boundary Integral Methods XI-UKBIM-2017, Nottingham, UK (July 10-11), 152-159.
- F.S. Oğlakkaya and C. Bozkaya (2017). Heat transfer in an annulus enclosure under the influence of multiple magnetic sources. Proceedings of Ukrainian Conference on Applied Mathematics UCAM-2017, Lviv, Ukraine (September 28-30), 87-88.
- F.S. Oğlakkaya and C. Bozkaya (2018). MHD natural convection ferrofluid flow in semi-annulus enclosures. IOP Conf. Series: Journal of Physics: Conf. Series 1141, International Conference on Mathematical Modelling in Physical Sciences-ICMSQUARE-2018, Moscow, Russia (August 27-31), 012036.
- F.S. Oğlakkaya and C. Bozkaya (2019). DRBEM solution of the MHD forced convection in a channel with sinusoidal walls. Proceedings of Advances in Boundary Element and Meshless Techniques XX-BETEQ 2019, Palermo, Italy (July 22-24), 186-191.

International Conference Abstracts

- F.S. Oğlakkaya, and C. Bozkaya (2015). Natural convection of nanofluid flows in a semicircular annulus using DRBEM. Abstract book of European Conference on Numerical Mathematics and Advanced Applications-ENUMATH-2015, Ankara, Turkey (September 13-18), 200.

- F.S. Oğlakkaya, and C. Bozkaya (2021). Effects of a Rotating Cylinder on MHD Forced Convection in an Infinite Channel. International Conference on Applied Mathematics in Engineering-ICAME-2021, Balkesir, Turkey (September 1-3), 71.

National Journal Publications

- F.S. Oğlakkaya, and S. Solak (2020). Some special matrices and combinatorial identities. Selcuk University Journal of Science, April, 46(1), 1-12.

National Conference Abstracts

- F.S. Olakkaya ve C. Bozkaya (2019). Forced convection flow in a channel with symmetrically sinusoidal walls. Abstract book of 6th Women Mathematicians Association Workshop TKMD-2019, Konya, Trkiye (April 26-28), 27.

Posters Presented in National Workshops

- F.S. Oğlakkaya, and C. Bozkaya, Ferrofluid flow in a sinusoidal enclosure under the effect of nodal magnetic source, 3rd Women Mathematicians Association Workshop, İzmir, 27-29 May 2016.

Citations

- Total Citations (WOS): 23
- H-Index (WOS): 2

Research Interest

- Numerical Solutions to PDEs
- Computational Fluid Dynamics
- Magnetohydrodynamics
- Ferrohydrodynamics

Numerical Methods

- Boundary Element Method (BEM)
- Finite Difference Method (FDM)
- Finite Element Method (FEM)

Teaching Experience

- Calculus with Analytic Geometry (Math 119), Department of Mathematics, METU.
- Calculus of Functions of Several Variables (Math 120), Department of Mathematics, METU.
- Basic Mathematics I (Math 125), Department of Mathematics, METU.
- Basic Mathematics II (Math 126), Department of Mathematics, METU.

- Introduction to Differential Equations (Math 219), Department of Mathematics, METU.
- Introduction to MATLAB (Math 117), Department of Mathematics, Osmaniye Korkut Ata University.
- Analytic Geometry-1 (Math 111), Department of Mathematics, Osmaniye Korkut Ata University.
- Basic Mathematics (Bes 107), Department of Mathematics, Osmaniye Korkut Ata University.
- Calculus 1 (MAT105), Department of Energy Systems Engineering, Osmaniye Korkut Ata University.
- Calculus 1 (MAT101), Department of Chemistry Engineering, Osmaniye Korkut Ata University.
- Basic Mathematics 1 (KIM107), Department of Chemistry, Osmaniye Korkut Ata University.
- Calculus 1 (EEM101), Department of Electrical Engineering, Osmaniye Korkut Ata University.
- Calculus 1 (MMB101), Department of Mechanical Engineering, Osmaniye Korkut Ata University.
- Calculus 2 (EEM101), Department of Electrical Engineering, Osmaniye Korkut Ata University.
- Calculus 2 (MMB101), Department of Mechanical Engineering, Osmaniye Korkut Ata University.
- Topology (MAT306), Department of Mathematics, Osmaniye Korkut Ata University.

Funding and Academic Projects

- C. Bozkaya (Coordinator), F.S. Oğlakkaya (Researcher) (January 2015-December 2016). Magnetohydrodynamic nanofluid and convective heat transfer. BAP-1, Department of Mathematics, Middle East Technical University, Project No: BAP-01-01-2015-002, Project Budget: 7000TL.

Memberships in Scientific Organizations

- Turkish Women in Mathematics

Interest

- Aikido
- Tennis
- Pilates