Dr. Mostafa Kafaei Razavi
Applied Mathematics - Numerical Analysis Field
Department Of Mathematics
Ferdowsi University Of Mashhad

#### **Member of the National Foundation of Elites**

1st grade of mathematical olympiad

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#### RESEARCH INTERESTS

- Numerical Methods for solving ODEs and PDEs
- Application of mathematics in engineering
- Optimal Control and Optimization
- Mathematical Modeling in Biomedical Engineering
- Stochastic Differential Equations

#### **EDUCATION**

**Selection of specialized courses passed:** Optimal Control and Calculus of Variation, Advanced Numerical Analysis, Numerical Methods in Linear Algebra, Integer Programming and Network Flows, Real Analysis, Advanced Operational Research, Topics in Finite Element Methods, Stochastic Processes, Topics in Adaptive Mesh Methods.

# **Selected publications**

- M.A. Nasiri Khalil, M. Kafaei Razavi [\*] M. Kafaii Razavi, An Optimized Mathematical Model for Items Supplies Planning of a Logistic System, *Modern Applied Sciences*, vol.10, 133-149, 2016.
- M.A. Nasiri Khalil, **M. Kafaei Razavi\***, M. Kafaii Razavi, A mathematical model and simulation for cognitive defence of the immune system against tumor growth, *Trends in life sciences*, vol.5, 105-123, 2016.
- **M. Kafaei Razavi**, A. Kerayechian, M. Gachpazan, and S. Shateyi\*, A New Iterative Method for Finding Approximate Inverses of Complex Matrices, *Abstract and Applied Analysis*, Article ID 563787, 7 pages, 2014.
- M. Kafaei Razavi\*, E. Rezaei Nik, Meta Heuristic for Multi Depot Inventory Routing Problem with Backlogging, *Journal of Basic and Applied Scientific Research*, vol.3,

273-280, 2013.

- **M. Kafaei Razavi\***, A. Kerayechian, M. Gachpazan, Spectral Element Method for Elliptic Partial Differential Equations, *Scientific Bulletin Series A: Applied Mathematics and Physics*, (2016).
- S.M. Akbari, **M. Kafaei Razavi**\*, A novel algorithm and model for multi-depot inventory routing problem, *Bulletin of the Australian mathematical society*, (2016).
- S. Effati, **M. Kafaei Razavi**, A. Mansouri\*, M. Eshaghnezhad, A projection neural network for solving mixed-integer programming with quadratic programming problems, *The 44<sup>th</sup> Annual Iranian Mathematics Conference* (27-30 Agust 2013).
- M. Kafaei Razavi\*, M. Eshaghnezhad, S. Kardar Tehran, Preconditioned SOR iterative method of linear systems with Z-matrices, *International conference of Takestan*, Iran, (25 April 2013).
- M. Kafaei Razavi\*, A. Rezaei Nik, Solving Multi depot inventory routing problem with backlogging by parallel genetic algorithm, *International conference of Takestan*, Iran, (25 April 2013).
- M. Kafaei Razavi\*, M. Kafaei Razavi, Preconditioned SSOR iterative method of linear systems with M-matrices, *International conferance of Takestan*, Iran, (25 April 2013).
- **M. Kafaei Razavi**\*, A.R. Soheili, Moving finite deference method for solving Asian option equation, *The 44<sup>th</sup> Annual Iranian Mathematics Conference* (27-30 Agust 2013).
- **M. Kafaei Razavi**\*, F. Toutounian, Preconditioned AOR iterative method for linear systems with L-Matrices, *The 44<sup>th</sup> Annual Iranian Mathematics Conference* (27-30 Agust 2013).
- S. Kardar Tehran\*, **M. Kafaei Razavi**, H. NazarZadeh, Review and compare of fractional Differentiation and Integration of Caputo, Riemann-Liouville and Grunwald-Letnikov, *The Fifth Conference on Applied Mathematics Hamedan*, *Iran* (8 September 2013).
- **M. Kafaei Razavi\***, A. Kerayechian, M. Gachpzan, A HYBRID METHOD BASED ON SPECTRAL METHOD AND FINITE ELEMENT METHOD FOR SECOND ORDER PDES, *34<sup>th</sup> Research World Conference*, Moscow, Russia, 9<sup>th</sup> -10<sup>th</sup> August 2017.

And etc		

[\*]Corresponding author

## **Awards and honors**

- High-grade teacher evaluation score (20/20), 2015.
- Members of the top elite education, research and innovation in the National Elites Foundation, 2013-now.
- **Ranked 1**<sup>st</sup> among more than 1000 participants in a nationwide Applied Mathematics M.Sc. entrance exam of Islamic Azad university, 2011.

- Ranked 1<sup>st</sup> in electronic engineering Ph.d entrance exam, Ferdowsi University of Mashhad, 2013.
- Ranked 1st in Interviews Ph.D entrance exam, Ferdowsi University of Mashhad, 2013.
- Ranked 2<sup>nd</sup> among more than 1000 participants in a nationwide mathematical Olympiad, 2003.
- Ranked 1<sup>st</sup> and best paper of international conference on applied physics and mathematics in Moscow Russia, 2017.

### Languages

- Persian: Native.
- English: ADVANCED, TELP, MSRT.

## Teaching (2012-now)

Courses: Numerical Computation, Numerical Analysis, General Mathematics 1, 2 and 3,
Differential Equations, Engineering Mathematics, Applied Mathematics, Robotic and
Electronic Technical Language, Modern Control, Operations research.

### **Certificates**

- Degree with honors teacher evaluation ((19.6-20)/20) in all universities listed, 2014-now.
- Software Optimization, from Hamedan University of Iran, 2013.
- General Math Teaching Skill Degree (19.25/20) from Mashhad Iran's Ministry of Education, 2012.
- General Math Teaching Skill Degree from Ferdowsi University of Mashhad Iran, 2012.
- ICDL, Score 91/100, 2011.

#### **Members**

- National Elites Foundation of Iran, 2013-now.
- European Operational Research Society, 2014-now.
- Bulletin of the Iranian Mathematical Society, 2010-now.