

CURRICULUM VITAE



Personal information

First Name: Alireza

Last Name: Ataei

Scientific Position: Assistant Professor

Address: Persian Gulf University, Faculty of Sciences,
Mathematics Department, Bushehr 75169, Iran.

Date of birth: July 26, 1969, Behbahan, Iran

Citizenship: Iran

Languages: Persian, English, compatible understanding, speaking
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Education:

- **Ph.D.:** Applied Mathematics, Ferdowsi University, Mashhad, Iran, 2009.
- **M. Sc.:** Applied Mathematics, Shaeed Bonar University, Kerman, Iran, 1998.
- **B. Sc.:** Applied Mathematics, Shiraz University, Iran, 1994.

Research Interests:

- Preconditioning techniques, iterative methods
- Scientific computing
- Numerical linear algebra
- Saddle Point Problems
- Eigen Value Problems
- Least squares problems

Current Membership:

- Iranian Mathematics Society
- Iranian Operations Research Society

Teaching Experience:

- Calculus
- Differential Equations
- Numerical Analysis 1,2
- Operations Research
- Advanced Operation Research
- Advanced Numerical Analysis

- Advanced Numerical Analysis
- Numerical Linear Algebra
- Integral Equations

Publications:

- F. Toutounian, A. Ataei, **A new method for computing Moore-Penrose inverse matrices**, Journal of Computational and Applied Mathematics, 228 (2009), 412-417.
- A. Ataei, **Improved Qrginv Algorithm for Computing Moore-Penrose Inverse Matrices**, Hindawi Publishing Corporation ISRN Applied Mathematics, 2014.
- A. Ataei, **An Improved DGMRES Algorithm for Computing the Drazin-inverse Solution of Singular Linear Systems**, British Journal of Mathematics and Computer Science 11(4) (2015) 1-10.
- A. Ataei, **A QMR-type algorithm for Drazin-inverse solution of singular Nonsymmetric Linear Systems**, Advanced in Linear Algebra and Matrix Theory, 6 (2016) 104-115.
- A. Ataei, F. Toutounian, **GGMRES: A GMRES-type algorithm for solving linear equations with index one**, Journal of Mathematical Modeling, 5 (1) (2017) 1-14.
- R. Sharafadini, A. Ataei, Habibeeh Panahbar, **Applications of a theorem by Ky Fan in the theory of weighted Laplacian graph energy**, New Trend in Mathematical Sciences, (In press).
- H. Shahbandarzadeh , A. Ataei, H. Nagmei, **The mathematical model for the capacitated vehicle routing problem with time windows with the possibility of returning vehicles and transportation systems**, (submitted).
- H. Shahbandarzadeh, A. Ataei, H. Nagmei, **A Mathematical Model Based on the capacitated vehicle routing problem with time windows for garbage collection**, (submitted).

Research projects

- A robust method for Computing Moore-Penrose inverse

Presentations:

- A. Ataei, **How can we read and learn the calculus course**, the sixth Iranian Mathematics Education Conference, (2003).
- F. Toutounian, A. Ataei, **Conjugate Gram-Schmidt process for Computing the Moore-Penrose Generalized Inverse Matrix**, 37th Annual Iranian Mathematics conference, (2006).
- Ataei, **New methods for computing the Moore – Penrose inverse**, University of Geneva, Swiss, (2007).
- Ataei and M. Mogharab, **Eccentric connectivity index of bridge graphs and its application**, The fifth conference and workshop on mathematical chemistry Payame Noor University of Yazd, 15 -17 Feb. 2012 .
- M. Etaei and A. Ataei, **Production of Nano Crystalline Sic Powder Using High Mill and Heat Treatment**, the sixth conference and workshop on mathematical chemistry 2013, Bushehr, Iran.
- R. Sharafadini, A. Ataei and K. Shojae, **Ediz Eccentric Connectivity Index of Some Thorn Graphs**, the sixth conference and workshop on mathematical chemistry 2013, Bushehr, Iran.

- A. Ataei, F. Toutounian, **A New Method for Computing the Group-inverse solution of Singular Linear Equations**, The 8th Seminar on Linear Algebra and its Applications 13-14th May 2015, University of Kurdistan, Iran.
- A. Ataei, **A fast computational method for calculate the Moore-Penrose inverse full and sparse matrices**, The 8th Seminar on Linear Algebra and its Applications 13-14th May 2015, University of Kurdistan, Iran.
- H. Shahbandarzadeh, A. Ataei, H. Nagmei , **Provide a new operator in simulated annealing algorithm for vehicle routing period**, 6th International Conference on Accounting & Management and 3rd International Conference Entrepreneurship & Open innovation, 5th Nov. 2016, Talash conf. center. Teheran, Iran.
- H. Shahbandarzadeh, A. Ataei, H. Nagmei , **Vehicle Routing Problem and review of literature mathematical models and optimization methods**, 20 October 2016, Vocational University of Tabriz, East Azerbaijan province and Industrial Management Institute. Iran.

M.Sc. students:

- 2011 Yahya Khatami joo, *Moore - Penrose Inverse and Its Computation Methods for Dense and Sparse Matrices with large size*.
- 2013 Fereshteh Bahranei, *Image Processing Based on Partial Differential Equations*, Second Supervise.
- 2013 khadeigeh Shojae, *Numerical Methods for Computing energy of Graph*, Second Supervise.
- 2014 Fatemeh Rahimi, *A Comparison of Some Methods Iterative Methods For Solving Large and Sparse Nonsymmetric Linear Systems*.
- 2014 Zobideh Nemati, *DGMRES Method for Computing Drazin-Inverse Solution of Singular Nonsymmetric Linear Systems*.
- 2014 Soghra Koohpyma, *Computing Topological Polynomials of Regular Dendrimers and Their Properties*, Second Supervise.
- 2014 Salimeh Mahmoodi, *Iterative Methods for Computing Moore-Penrose Inverse*.
- 2016 Omid Bahrani Fard, *Preconditioned GMRES Methods with Incomplete Givens Orthogonalization Method for Large Sparse Least-Squares Problems*.
- 2016 Abolhassan soholi, *Block ILU Preconditionres for Block Tridiagonal Systems*.
- 2016 zeynab soholi, *Preconditioning Leas t Squares Problems by Greville's method*.
- 2016 firozeh mosalla nejad, *A Comparison of Some Iterative Methods for Solving Large and Sparse Nonsymmetric Linear Systems*.

Honors and executive profile:

- **Head of the department of mathematics** of University of Persian Gulf for four years.
- **Outstanding Educational Professor** of the Faculty of Basic Sciences, University of Persian Gulf, 2011.
- **Member of scientific committee** of the 6th Conference and Workshop on Mathematical Chemistry Persian Gulf University, Bushehr, 13-14 Feb. 2013.

- **Executive secretary** of the 6th Conference and Workshop on Mathematical Chemistry Persian Gulf University, Bushehr, 13-14 Feb. 2013.

Referee for international journals:

- Journal of Applied Mathematics and Computing.
- Journal of Inequalities of Applications.
- Thai Journal of Mathematics.