Saeed Karami

✆ *+98-24-33155105*
✉ *s.karami@iasbs.ac.ir*

General Information

Current position:	Assistant Professor in Applied Mathematics, Institute for Advanced Studies in Basic Sciences (IASBS), Zanjan, Iran.
Research interest:	Numerical Linear Algebra and Matrix Theory, Machine Learning.
Math. Genealogy	https://www.genealogy.math.ndsu.nodak.edu/id.php?id=189324

Education

PhD, *Shahid Bahonar University*, Kerman, Iran.

MSc, *Shahid Bahonar University*, Kerman, Iran.

BSc, *Amirkabir University of Technology*, Tehran, Iran.

Membership

IMS	Iranian Mathematical Society
ILAS	International Linear Algebra Society

Teaching Materials

Under graduate	Linear Algebra, Numerical Linear Algebra, Numerical Analysis, Mathematical Analysis, Calculus 1, Calculus 2, Differential Equations, Optimization
Post graduate	Advanced Numerical Linear Algebra, Advanced Numerical Analysis, Real Analysis, Matrix Analysis, Functional Analysis, Dynamical Systems, Sparse Matrices Technology, Theoretical Foundations of Numerical Analysis

MS. C. Thesis

Title:	*Orthogonal space-time codes*
Supervisor:	Hosein Momenaei

Ph. D. Thesis

Title:	*Polynomial numerical hulls of matrices and iterative methods for solving linear systems*
Supervisor:	Abbas Salemi (Homepage(click here))

Language Proficiency

IELTS: Overall 7

Computer skills

Matlab, Mathematica, Python(Numpy, Scikit-Learn,...)

Publications

1- F. Saberi-Movahed, M. Rostami, K. Berahmand, **S. Karami**, P. Tiwari, M. Oussalah and Sh. Shamshirband, Dual Regularized Unsupervised Feature Selection Based on Matrix Factorization and Minimum Redundancy with application in gene selection, Knowledge-Based Systems (2022) 256:109884, **IF: 8.038, Q:1** (click here).

2- F. Saberi-Movahed,..., **S. Karami**,..., I. Tavassoly, Decoding clinical biomarker space of COVID-19: Exploring matrix factorization-based feature selection methods, Computers in Biology and Medicine (2022) 146: 105426, **IF: 6.698, Q:1** (click here).

3- O. Abdollahi, **S. Karami** and J. Rooin, New unitary equivalences for some operator matrices with applications, Linear and Multilinear Algebra (2022), DOI: 10.1080/03081087.2022.2092046, **IF: 1.178, Q:2**.

4- **S. Karami** and A. Salemi, Polynomial numerical hulls of the direct sum of two Jordan blocks, Linear Algebra and its Application (2020) 585:209–226, **IF: 1.401, Q:1**.

5- J. Rooin, **S. Karami** and M. Ghaderi Aghideh, A new approch to numerical radius of quadratic operators, Annals of Functional Analysis (2020) 11:879–896, **IF: 0.993, Q:2**.

6- **S. Karami** and A. Salemi, Polynomial numerical hulls of the direct sum of a normal matrix and a Jordan block, Linear Algebra and its Application (2015) 465:143–160, **IF: 1.401, Q:1**.

Under review papers

1- **S. Karami**, F. Saberi-Movahed, P. Tiwari and P. Marttinen, Unsupervised Feature Selection Based on Variance-Covariance Subspace Distance (Under review)

2- **S. Karami**, M. Ahmadnasab, A. Amiraslani and M. Hadizadeh, Intra-Basis Multiplication of Polynomials Given in Various Polynomial Bases, (Under review(click here))

3- **S. Karami**, An upper bound for the maximum eigenvalue of nonnegative symmetric Toeplitz matrices (Under review)

4- O. Abdollahi, **S. Karami**, J. Rooin and M.H. Sattari, Unitary equivalences for k-circulant operator matrices with applications (Under review)

Selected Conferences

1- Z. Rezaei, **S. Karami** and Z. Dadi, Comparison of the Euler and adaptive Runge-Kutta methods for solving a human T-cell lymphotropic virus type I, First Annual National Conference on Biomathematics, 12-13 March 2019, University of Neyshabur, Iran.

2- **S. Karami**, Polynomial numerical hulls of the direct sum of matrices, Korea-China International Conference on Matrix Theory with Applications, 14-17 December 2017, Sungkyunkwan University, Korea.

3- K. Nedaiasl, **S. Karami** and D. Rahmani, Local and spectral approximations of time-dependent coefficient diffusion equations, The 47nd Annual Iranian Mathematics Conference, 28-31 August 2017, Kharazmi University, Iran.

4- **S. Karami**, Some Results on Polynomial numerical hull of degree n-1, 9th Seminar on Linear Algebra and its Application, University of Tabriz, Iran, 2017, 5-6 July.

5- **S. Karami**, Is the origin included in the polynomial numerical hulls of direct sum of two Jordan blocks, 10th Seminar on Linear Algebra and its Application, Shahid Bahonar University of Kerman, Iran, 2020, 16-19 August.

Graduated M.Sc. Students

2022 **B. Nouri**, Sparse and low redundant subspace learning based dual graph regularized robust feature selection.

2021 **S. Maleki**, Numerical solution of fractional boundary value problem of Caputo type.

2021 **S. Alaei**, Analysis and numerical solution of a RiemannLiouville fractional derivative boundary value problem.

2020 **F. Mohebbi**, Stochastic Galerkin discretization of log-transformed random diffusion problems.

2020 **N. Nazari**, The study and investigation of an adaptive algorithm for stochastic Galrekin method.

2020 **M. Moradi**, A general framework for analyzing nonlinear eigenproblems and parametrized linear systems.

2019 **Z. Rezaei**, Numerical analysis for a dynamical model of HTLV-I infection.

2018 **M. Hasani**, Convergence of GMRES method for tridiagonal Toeplitz matrices.

2018 **L. Ghawidel**, Numerical range and numerical raddi of the powers of operators and its relation to unitary operators.

Executive Experiences

1- Member, Council of the Zanjan Science House, 2019-now.

2- Manager of the mathematics A-lympiad competition in Zanjan Province, 2018-now.

3- Member, Scientific and executive committee of the 5th Seminar on Operator Theory and its Applications, IASBS, March 2019.

4- Member, Executive committee of the 14th Seminar on Differential Equations, Dynamical Systems and Applications, IASBS, July 2018.