

Curriculum Vitae

Mohammad Hossein Alizadeh

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PERSONAL DETAILS

Date of Birth: 11th March 1973

Marital Status: Married (2004)

Children: Two sons (Yashar and Araz) and one daughter (Pinar)

Nationality: Iranian

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EDUCATION

- **1996** University of Tehran, B.Sc. (Pure Mathematics)
- **1999** M.Sc. Kharazmi University (Mosaheb Institute of Mathematical Research), in Functional Analysis and C*-algebra. Thesis title: Generalized inverses, Moore-Penrose inverse, Conorm, and essential Conorm in C*-algebra
- **2012** Ph. D. University of the Aegean, in Convex and Nonlinear Analysis. Thesis title: Monotone and generalized monotone bifunctions and their application to operator theory

EMPLOYMENT

- **2000-2002 Lecturer at the Faculty of Science, IK-University of Naval Science, Nowshahr, Iran (as a soldier)**
- **2002-2008 Lecturer (Faculty member) at the Department of Mathematic, School of Science Islamic Azad University, Noor-Branch, Noor, Iran**
- **2012- Assistant Professor at the Institute for Advanced Studies in Basic Sciences**

RESEARCH INTERESTS

- **Generalized Convexity and generalized monotonicity**
- **Nonlinear Analysis and Variational Analysis**
- **Generalized inverses in C^* -Algebra**

EDITOR OF SPECIAL JOURNAL ISSUES

- **Journal of Optimization Letter, Vol 15, 813–815 (2021). Special issue on variational analysis, optimization and their applications (Dedicated to Nicolas Hadjisavvas on the occasion of his 65th birthday).**

PUBLICATIONS

BOOKS

- **Problems and Solutions in Mathematical Analysis, Publisher: Elmi and Fanni, Tehran, Iran (Persian, 5th Edition)**
- **Problems and Solutions in Linear Algebra, Publisher: Elmi and Fanni, Tehran, Iran (Persian, 2th Edition, Joint work with F. Malek)**
- **Manual for Basic Mathematics, Publisher: Ketabiran, Tehran, Iran (Persian, Joint work with A. Davari)**

- **Advanced Calculus with Applications in Statistics, Andre I. Khuri, Publisher: Negarandedanesh, Tehran, Iran (Translated to Persian, Joint work with M. Ganjali)**
- **Problems and solutions in Calculus, 2 volumes Publisher: Elmi and Fanni, Tehran, Iran (Persian, Joint work with H. Mahzoon)**
- **Monotone Operators, Monotone Bifunctions and Fitzpatrick transform, Publisher: Scholars' Press**

PAPERS

Submitted papers:

- **M. H. Alizadeh, A. Iusem, W. Sos, *Some recent results on premonotone operators*, (submitted).**
- **M. H. Alizadeh, A.Y. Zanjani, *Some results on e-convex functions and e-subdifferential*, (submitted).**

Published and Accepted Research Papers:

- **M. H. Alizadeh, A.Y. Zanjani, *On the sum rules and maximality of generalized subdifferentials*, *Optimization*, (Accepted).**
- **M. H. Alizadeh, *Fitzpatrick Transform for Generalized Monotone Operators*, *Journal of Nonlinear and Convex Analysis* (Accepted)**
- **M. H. Alizadeh, J. Hosseinabadi, *On σ -subdifferential polarity and Frechet σ -subdifferential*, *Numerical Functional Analysis and Optimization*, (2023) <https://doi.org/10.1080/01630563.2023.2172034>**
- **M. Alimohammady, M. H. Alizadeh, A. Jahangir, M. Ramzannezhah, M. Roohi, *Theta monotone operators and bifunctions*, *Filomat*, 36 (6), 1819–1836 (2022)**
- **M. H. Alizadeh, M. Judit, *On e-convexity*, *Miskolc Mathematical Notes*, 23 (1), 51-60 (2022)**
- **M. H. Alizadeh, *On e-convex functions and e-subdifferentials in locally convex spaces*, *Optimization*, (first online): <https://doi.org/10.1080/02331934.2021.2015769>**

- M. H. Alizadeh, *On generalized convex functions and generalized subdifferential (II)*, Optimization Letter, 15 (6), 2925-2940 (2021).
- M. H. Alizadeh, *Linear maps and covariance sets*, International Journal of Nonlinear Analysis and Applications, 12 (2), 495-497 (2021).
- M. H. Alizadeh, *On generalized convex functions and generalized subdifferential*, Optimization Letter, 14 (1) 157- 169 (2020).
- H. Khatibzadeh, V. Mohabi, M. H. Alizadeh, *On the Cyclic Pseudo Monotonicity and Proximal point Algorithm*, Numerical Algebra, Control & Optimization 8 (4), 441-449 (2018)
- M. H. Alizadeh, M. Roohi, *Some results on pre-monotone operators*, Bulletin of the Iranian Mathematical Society 43 (6), 2085-2097 (2017)
- M. H. Alizadeh, M. Bianchi, N. Hadjisavvas and R. Pini, *On cyclic and n -cyclic monotonicity of bifunctions*, J. Global Optim. 60 (4), 599-616 (2014)
- Alizadeh, M. H., Hadjisavvas, N., *Fitzpatrick Transform of Sum*, The 45th Annual Iranian Mathematics Conference, Semnan, Iran, 91-93, (2014)
- Alizadeh, M. H., *Note on the Covariance Coset of the Moore-Penrose Inverses in C -Algebras*, Journal of Mathematical Extension 7, 1-7 (2013)
- M. H. Alizadeh, N. Hadjisavvas, *n -cyclically monotone bifunctions*, *Proceeding of ORO2013*, University of the Tehran, Tehran, 51-55, (2013)
- M. H. Alizadeh, N. Hadjisavvas, *On the Fitzpatrick transform of a monotone bifunction*, Optimization, 62, 693-701 (2013)
- M. H. Alizadeh, N. Hadjisavvas, *Local boundedness of monotone bifunctions*, J. Glob. Optim. 53, 231-241 (2012)
- M. H. Alizadeh, N. Hadjisavvas, M. Roohi, *Local boundedness properties for generalized monotone operators*, Journal of Convex Analysis, Vol. 19 No.1 (2012)
- M. H. Alizadeh, *On the covariance of generalized inverses in C^* -Algebra*, JNAIAM (Journal of Numerical Analysis, Industrial and Applied Mathematics) vol. 5, 135-139 (2011)

- M. H. Alizadeh, *On the covariance of generalized inverses*, Proceeding of ICNAAM 548-552, Greece (2005)
- A. Khosravi, M. H. Alizadeh, *Generalized inverse of product*, Int. J. of Appl. Math, Vol. (10), No 2, 141-148, (2002)
- M. H. Alizadeh, A. Khosravi, *On a question of Mbekhta*, Proceeding of 31st Annual Iranian, Mathematics Conference, Tehran, Iran 162-168, (2000)

TALKS IN INTERNATIONAL CONFERENCES

- The 6th Seminar on Functional Analysis and Its Applications, Isfahan, Iran, January (2021) (**Invited Speaker**).
- The Second Workshop on Nonsmooth Optimization and its Applications, Urmia, Iran, September (2021) (**Invited Speaker**).
- 12th International Symposium on Generalized Convexity and Monotonicity, Debrecen (Hajduszoboszlo), Hungary, August 27 – September 2, (2017), 1-2, (2017).
- The 22nd Seminar on Mathematical Analysis and It's Applications, Bonab, Iran, 26-27 January 2017, 1-5, (2017).
- 3th International Conference on Nonlinear Analysis and Optimization Generalized Monotone Operators and Bifunctions, Isfahan, Iran, (2015).
- 45th Annual Iranian Mathematics Conference (AIMC45), 26-29 August 2014, University of Semnan, Semnan, Iran
- 44th Annual Iranian Mathematics Conference (AIMC44), 27-30 August 2013, Ferdowsi University of Mashhad, Mashhad, Iran
- 2nd International Conference of ORO2013, 19-22 January 2013, University of the Tehran, Tehran, Iran.
- 10th International Symposium on Generalized Convexity and Monotonicity, Babes-Bolyai University, August 22-27, 2011, Cluj-Napoca, Romania
- 37th Annual Iranian Mathematics Conference (AIMC37), 2-5 September 2006, Azarbaijan University of Tarbiat Moallem, Tabriz, Iran

- **International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), 16-20 September 2005, Rhodes, Greece**
- **31st Annual Iranian Mathematics Conference (AIMC37), 25-27 August 2000, Tehran University, Tehran, Iran**

REFEREE

- **American Mathematical Society (AMS reviewer)**
- **Optimization**
- **Optimization Letters**
- **Positivity**
- **Journal of Global Optimization**
- **Journal of Optimization Theory and Applications**
- **Applied mathematics and Computation**
- **Set-valued and Variational Analysis**
- **Bulletin of the Iranian mathematical society**
- **Scientific Journal of Mathematics**

COURSES TAUGHT

- **Some topics Maximal Monotone Operators (graduated)**
- **Non-linear Analysis (graduated)**
- **Convex Analysis (graduated)**
- **Real Analysis 1,2 (graduated)**
- **Advanced Mathematical Engineering (graduated)**
- **Real Analysis (graduated)**
- **Convex Analysis (graduated)**
- **Calculus 1, 2, 3**
- **Mathematical Analysis 1, 2, 3**

- **Linear Algebra**
- **Elementary Algebraic Topology**
- **Introduction to Differential Geometry**
- **General Topology**
- **Complex Variables**
- **Mathematical Engineering**
- **Projective Geometry**
- **Differential Equations**

Teaching Experience Outside of, Institute for Advanced Studies in Basic Sciences

- **1994-1996 University of Tehran, Assistant of Professor for solving the Problems of Courses Analysis 1, 2**
- **1997-1998 Lecturer (Invited) at the Faculty of Management and Accounting, Islamic Azad University, Central Tehran Branch, Taught Courses on Calculus**
- **1998-1999 Lecturer (Invited) at the Faculty of Engineering , Islamic Azad University, South Tehran Branch, Taught Courses on Calculus**
- **2000-2002 Lecturer at the Faculty of Science, IK-University of Naval Science, Nowshahr, Iran, Taught Courses on Calculus and Mathematical Engineering**
- **2001-2002 Lecturer (Invited) at the Faculty of Science, Department of Mathematics Payame Noor University (Abhar) Taught Courses on Analysis 1 and Optimization**
- **2002-2003 Lecturer (Invited) at the Faculty of Mechanical Engineering Islamic Azad university Takestan Branch Taught Courses on Mathematical Engineering**

- **2003-2006 Lecturer (Invited) at the Faculty of Science, Department of Mathematics, Islamic Azad University Nowshahr and Chaloos Branch Taught Courses on Analysis 1, 2, 3 and General Topology**
- **2003-2004 Lecturer (Invited) at the Faculty of Science, Department of Mathematics Payame Noor University (Mahmood Abad) Taught Courses on Analysis 1, 2 and Complex Variables**
- **2004-2005 Lecturer (Invited) at the Faculty of Management and Accounting, Allameh Tabatabai University Taught Courses on Calculus**
- **2006-2007 Lecturer (Invited) at the Faculty of Science and Faculty of Mechanical Engineering, K. N. Toosi University of Technology Taught Courses on Calculus and Differential Equations**
- **2002-2008 Lecturer at the Department of Mathematic, School of Science Islamic Azad University, Noor-Branch, Noor, Iran_Taught Courses on Analysis 1, 2, 3 and Projective Geometry, Mathematical Engineering, Introduction to Differential Geometry**

MATHEMATICAL REASEARCH PROJECTS

- **Alizadeh M. H.: *On the Covariance of Moore-Penrose Inverses*, Islamic Azad University, Noor Branch, completed in 2005.**
- **Alizadeh M. H.: *Some Results on Moore-Penrose Inverses in C*-algebras*, Islamic Azad University, Nowshahr and Chaloos Branch, completed in 2006.**
- **Alizadeh M. H. and Jalili O.: *On the Generalized and Drazin inverses in C*-algebras* , Islamic Azad University, Noor Branch, completed in 2008.**

- Alizadeh M. H. and Jalili O.: *Partial isometrics and Moore-Penrose inverses in Banach algebras and reduction *-rings*, Islamic Azad University, Noor Branch, completed in 2012.
- Alizadeh M. H.: *Some results on the n-cyclically monotone bifunctions and operators*, to be completed in 2012.
- Alizadeh M. H.: *Linear Maps Preserving the Generalized inverses in C*-algebras*, to be completed in 2013.

HONORS

- Membership in Tehran University Math team in 20th mathematic competition of Iranian students and acquiring the fifth place.
- Member of the Iranian Mathematical Society.
- Member of the Working Group on generalized Convexity.

LANGUAGES

- Azerbaijani (mother tongue)
- Persian (native)
- English (written and spoken fluently)
- Turkish (spoken fluently and written in medium level)
- Greek (written and spoken in basic level).

HOBBIES

- Cycling, Mountain Climbing, Volleyball, and Boxing
- Literature and Poems

- **Traditional Music, Historical Places, News around World and watching Soccer**