



**Mohammad Hadi Noori Skandari**

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----- **ADDRESS**

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----- **PERSONAL STATEMENT**

Date of birth: 12 April 1983  
Position of birth: Mashhad, Iran

----- **EMPLOYMENT HISTORY**

**02/2014 - present** Department of Applied mathematics, Shahrood University of Technonlogy, Iran

----- **EDUCATION**

**09/2002 – 07/2006** **B.Sc.** : Applied Mahematics  
Department of Applied Mathematics, Ferdowsi University of Mashhad, Mashahd, Iran

**09/2006 – 12/2008** **M.Sc.** : Applied Mahematics (Control and Optimization)  
Thesis Title: Determination of attenuation map and corrected images in SPECT by mathematical programming

Supervisor: Prof. Ali Vahidian Kamyad

Advisor: Prof. Mohsen Hajizadeh Saffar

**09/2009 – 09/2013** **Ph.D.** : Applied Mahematics (Control and Optimization)  
Department of Applied Mathematics, Ferdowsi University of Mashhad, Iran  
Supervisor: Prof. Ali Vahidian Kamyad  
Advisors: Prof. Mohammad Hadi Farahi and Prof. Sohrab Effati

----- **RESEARCH INTERESTS**

- Control systems
- Optimal control
- Pseudospectral methods
- Fuzzy modeling
- Nonsmooth systems
- Stability of nonlinear systems
- Mathematical biology

----- **SKILLS**

Mathematical Software: MATLAB

Language: Persian and English

----- **REFEREEING SERVICE (Journals)**

- Optimal control, applications and methods
- Nonlinear Dynamics
- IMA Mathematical Control and Information
- Applied Mathematical Modelling
- Iranian Journal of Numerical Analysis and Optimization
- Neural Networks and Applications
- Control and Measurements

----- **TEACHING**

- Calculus 1, 2
- Numerical analysis
- Differential equations
- Engineering mathematics
- Calculus of variations and optimal control
- Control systems
- Advanced linear optimization
- Advanced nonlinear optimization

----- **RESEARCH PAPERS**

----- **Published Papers** -----

- 1- H Jafari, M Mahmoudi, **M.H.Noori Skandari**, A new numerical method to solve pantograph delay differential equations with convergence analysis, *Advances in Difference Equations* **2021** (129), 1-12
- 2- Yu Huang, F. Mohammadzadeh, **M. H. Noori Skandari** , H. A. Tehrani, E. Tohidi, Space–time Chebyshev spectral collocation method for nonlinear time-fractional Burgers equations based on efficient basis functions,

Mathematical methods in the applied sciences, **2020**.

- 3- N. Peykrayegan M. Ghovatmand, **M. H. Noori Skandari**, On the convergence of Jacobi-Gauss collocation method for linear fractional delay differential equations, *Mathematical methods in the applied sciences*, **2020**
- 4- Mostafa Nazari, Morteza Nazari, Mohammad Hadi **Noori Skandari**, Pseudo-spectral method for controlling the drug dosage in cancer, *IET Systems Biology* 14 (5), 261-270, **2020**
- 5- Yin Yang, **M. H. Noori Skandari**, Pseudospectral method for fractional infinite horizon optimal control problems, *Optimal Control Applications and Methods*, **2020**
- 6- M Mahmoudi, M Ghovatmand, **M. H. Noori Skandari**, A New Convergent Pseudospectral Method for Delay Differential Equations, *Iranian Journal of Science and Technology, Transactions A: Science*, **2020**.
- 7- **M. H. Noori Skandari**, M. Habibli, A. Nazemi, A direct method based on the Clenshaw-Curtis formula for fractional optimal control problems, *Mathematical Control & Related Fields* 10 (1), 171, **2020**.
- 8- Yu Huang, Mohammad Hadi **Noori Skandari**, Fatemeh Mohammadizadeh, Hojjat Ahsani Tehrani, Svetlin Georgiev Georgiev, Emran Tohidi and Stanford Shateyi, Space–Time Spectral Collocation Method for Solving Burgers Equations with the Convergence Analysis, *Symmetry* 11, **2019**.
- 9- M Mahmoudi, M Ghovatmand, **M.H. Noori Skandari**, A novel numerical method and its convergence for nonlinear delay Volterra integro-differential equations, *Mathematical Methods in the Applied Sciences*, **2019**.
- 10- F. Mohammadizadeh, H. A. Tehrani, **M. H. Noori Skandari**, Chebyshev pseudo-spectral method for optimal control problem of Burgers' equation, *Iranian Journal of Numerical Analysis and Optimization* 9 (2), **2019**.
- 11- Tehrani H. A., **Noori Skandari M. H.**, Georgiev S. G. , Mohammadizadeh F., A Novel Proof on the Existence of the Solution of Fractional Control Problem Governed by Burgers Equations, *Journal of partial differential equations*, 32 (2), 129-143, **2019**.
- 12- **M.H. Noori Skandari**, Universal Approximator Property of the Space of Hyperbolic Tangent Functions Biquarterly Research Journal of Control and Optimization in applied mathematics, **2019**.
- 13- **M. H.Noori Skandari**, M. Ghaznavi, M. Abedian, Stabilizer control design for nonlinear systems based on the hyperbolic modelling, *Applied Mathematical Modelling* 67, 413-429, **2019**.
- 14- **M. H.Noori Skandari**, F. Mohammadizadeh, H. A. Tehrani, S. G. Georgiev, An optimal control problem associated to a class of fractional Burgers' equations, *Asian-European Journal of Mathematics*, **2019**.
- 15- S. G. Georgiev, F. Mohammadizadeh, H.A. Tehrani, **M. H. Noori Skandari**, On the Solution of Fractional Burgers' Equation and Its Optimal Control Problem, *Analysis in Theory and Applications*, 35 (4), **2019**.
- 16- M. Habibli and M.H. Noori Skandari, Fractional Chebyshev pseudospectral method for fractional optimal control problems, *Optimal control applications and methods*, **2019**.
- 17- **M. H. Noori Skandari**, M Ghaznavi, An efficient algorithm for solving fuzzy linear programming problems, *Neural Processing Letters* 48 (3), 1563-1582, **2018**.
- 18- **M. H. Noori Skandari**, A Nazemi, A new approach to design asymptotically stabilizing control and adaptive control, *Optimal Control Applications and Methods*, **2018**.
- 19- **MHN Skandari**, M Ghaznavi, A numerical method for solving shortest path problems, *Calcolo* 55 (1), 1-18, **2018**.
- 20- M. Ghaznavi and **M.H. Noori Skandari**, LCPI method to find optimal solutions of nonlinear programming problems, *World Journal of Modelling and Simulation* 14 (1), 50-57, **2018**.
- 21- **MH Noori Skandari**, M Ghaznavi, A novel technique for a class of singular boundary value problems, *Computational Methods for Differential Equations* 6 (1), 40-52, **2018**.
- 22- **M. H. Noori Skandari**, M. Ghaznavi, Optimal control approach for discontinuous dynamical systems, *Optimal Control Applications and Methods*, 38(6), 1004–1013, **2017**.
- 23- **M. H. Noori Skandari**, M. Ghaznavi, Chebyshev Pseudo-Spectral Method for Bratu's Problem, *Iranian Journal of Science and Technology, Transactions A: Science*, 41(4), 913-921, **2017**.
- 24- **M. H. Noori Skandari**, On the Validity of Nonlinear and Nonsmooth Inequalities, *I.J. Intelligent Systems and Applications*, 9 (1), 60-66, **2017**.

- 25- **M. H. Noori Skandari**, A.V. Kamyad, S Effati, Smoothing approach for a class of nonsmooth optimal control problems, *Applied Mathematical Modelling*, 40 (2), 886-903, **2016**.
- 26- M Ghaznavi, **M. H. Noori Skandari**, An Efficient Pseudo-Spectral Method for Nonsmooth Dynamical Systems, *Iranian journal of science and technology; Transaction A: Science*, DOI: 10.1007/s40995-016-0040-9, **2016**.
- 27- H. R. Erfanian, **M. H. Noori Skandari**, A.V. Kamyad, Control of a class of nonsmooth dynamical systems, *Journal of Vibration and Control*, 21 (11), 2212-2222, **2015**.
- 28- **M. H. Noori Skandari**, On the stability of a class of nonlinear control systems, *Nonlinear dynamics*, 80(3), 1245–1256, **2015**.
- 29- H. R. Erfanian, **M. H. Noori Skandari**, A.V. Kamyad, A New Approach for Generalized Partial Derivatives of Non-smooth Functions, *Walailak Journal of Science and Technology (WJST)* 11 (12), 1031-1040, **2014**.
- 30- **M. H. Noori Skandari**, A.V. Kamyad, S. Effati, Generalized Euler–Lagrange equation for nonsmooth calculus of variations, *Nonlinear Dynamics* 75 (1-2), 85-100, **2014**.
- 31- S. Oloomi, **H. N Eskandari**, S. R. Zakavi, P. Knoll, F. Kalantari, M. H. Saffar, A New Approach for Scatter Removal and Attenuation Compensation from SPECT/CT Images, *Iranian journal of basic medical sciences* 16 (11), 1181-1189, **2013**.
- 32- E.R. Erfanian, **M. H. Noori Skandari**, A. V. Kamyad, A numerical approach for nonsmooth ordinary differential equations, *Journal of Vibration and Control*, 19(14), 2124-2136, **2013**.
- 33- **M. H. Noori Skandari**, H. R Erfanian, A.V. Kamyad, M. H Farahi, Solving a Class of Non-Smooth Optimal Control Problems, *I. J. of Intelligent Systems and Applications*, 5(7), 16-22, **2013**.
- 34- H. R. Erfanian, **M. H. Noori Skandari**, A.V. Kamyad, A new approach for the generalized first derivative and extension it to the generalized second derivative of nonsmooth functions, *I. J. of Intelligent Systems and Applications*, 5(4), 100-107, **2013**.
- 35- H. R. Erfanian, **M. H. Noori Skandari**, A.V. Kamyad, A Novel Approach for Solving Nonsmooth Optimization Problems with Application to Nonsmooth Equations, *Journal of Mathematics*, DOI: 10.1155/2013/750834, **2013**.
- 36- **M. H. Noori Skandari**, A. Vahidian Kamyad, H. R. Erfanian, A new practical generalized derivative for nonsmooth functions, *The Electronic Journal of Mathematics and Technology*, 7(1), **2013**.
- 37- **M. H. Noori Skandari**, H. R. Erfanian, A.V. Kamyad, S Mohammadi, Optimal control of bone marrow in cancer chemotherapy, *European Journal of Experimental Biology*, 2(3), 562-569, **2012**.
- 38- S. Effati, **M. H. Noori Skandari**, Optimal control approach for solving linear Volterra integral equations, *International Journal of Intelligent Systems and Applications*, 4(4), 40-46, **2012**.
- 39- **M. H. Noori Skandari**, M. H. Farahi, Optimal control for general n-compartmental models in cancer chemotherapy using measure theoretical approach, *International journal of sensing, computing & control*, 2(1), 27-37, **2012**.
- 40- **M. H. Noori Skandari**, H.R. Erfanian, A. Vahidian Kamyad, Generalized derivative of fuzzy nonsmooth functions, *Journal of Uncertain Systems*, 6(3), 214-222, **2012**.
- 41- H. R. Erfanian, **M.H. Noori Skandari**, A. V. Kamyad, Solving a class of separated continuous programming problems using linearization and discretization, *International journal of sensing, computing & control*, 1(2), 117-124, **2011**.
- 42- E. Tohidi, **M.H. Noori Skandari**, A new approach for a class of nonlinear optimal control problems using linear combination property of intervals, *J. of Computations and Modelling*, 1, 145-156, **2011**.
- 43- A Vahidian Kamyad, **M. H Noori Skandari**, HR Erfanian, A new definition for generalized first derivative of nonsmooth functions, *Applied Mathematics*, 2(10), 1252-1257, **2011**.
- 44- **M. H. Noori Skandari**, HR Erfanian, A Vahidian Kamyad, A new approach for a class of optimal control problems of volterra integral equations, *Intelligent Control and Automation*, 2(2), 121-125, **2011**.

- 45- **M. H. Noori Skandari**, E. Tohidi, Numerical solution of a class of nonlinear optimal control problems using linearization and discretization, Applied Mathematics 2, 646-652, **2011**.
- 46- HR Erfanian, **M .H. Noori Skandari**, Optimal control of an HIV model, The Journal of Mathematics and Computer Science, 2 (4), 650-658, **2011**.
- 47- A. V. Kamyad, **M. H. Noori Skandari**, M. N. Midani, M.H. Saffar, New approach for attenuation correction in SPECT images, using linear optimization, International Journal of Radiation Research, 8(2), 111-116, **2010**.

### ----- Conference Papers -----

- مدل کنترلی- دیفرانسیلی مغز استخوان در شیمی درمانی سرطان ، چهل ونهمین کنفرانس ریاضی ایران
- بررسی شرایط پایداری سیستم های کنترل فازی تاکاگی- سوگینو، دومین سمینار کنترل و بهینه سازی
- طراحی کنترل برای سیستم های کسری، اولین کنفرانس ملی مدلسازی ریاضی در علم، فناوری و سیستم های هوشمند
- رهیافتی برای طراحی کنترل تطبیقی، دومین سمینار ملی کنترل و بهینه سازی
- بازسازی تصاویر SPECT در پزشکی بر مبنای مدل دوجمله ای منفی، چهاردهمین کنفرانس آمار ایران
- یک رهیافت تقریبی برای کنترل سیستم های غیرخطی ، دومین کنفرانس ملی و اولین کنفرانس بین المللی "محاسبات نرم و سیستم های هوشمند"
- یک رهیافت تقریبی برای حل رده ای خاص از مسائل کنترل بهینه کسری، ۴۸ امین کنفرانس ریاضی ایران
- A new stabilizer control for the ball-beam mechanical system, The first seminar on the control and optimization.
- An approximate solution for Burgers-Fisher equation, 48th Iranian Mathematical Conference.
- An approximate solution for optimal control problem of Burgers equation, The first seminar on the control and optimization.
- A new stabilizer control for the ball-beam mechanical system, 12th international Conference of Iranian Society of Operations Research