

MOHAMMAD MEHDI HOSSEINZADEH

Curriculum Vitae

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🌐 scholar.google.it/citations?user=uvT2q6AAAAAJ

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EDUCATION

Ph.D. in Economics, Applied Mathematics and Operational Research

University of Bergamo, Department of Management, Economics and Quantitative Methods

📅 2012–2017 📍 Bergamo, Italy

Thesis: *Optimal asset-liability management for defined benefit pension fund under stochastic correlation.*
Supervisor: Prof. Giorgio Consigli.

M.Sc. in Applied Mathematics

IAU, Central Tehran Branch, Department of Mathematics

📅 2009–2011 📍 Tehran, Iran

B.Sc. in Applied Mathematics

IAU, Ghaemshahr Branch, Department of Mathematics

📅 2005–2009 📍 Ghaemshahr, Iran

ACADEMIC AND PROFESSIONAL EXPERIENCE

Assistant Professor in Computer Science

University of Bergamo, Department of Literature, Philosophy, Communication

📅 Feb. 2024 – Present 📍 Bergamo, Italy

Assistant Professor in Mathematical Methods in Economics, Actuarial and Financial Sciences

University of Calabria, Department of Economics, Statistics and Finance

📅 Mar. 2023 – Jan. 2024 📍 Rende, Italy

Postdoctoral Researcher (STaRs) in Computer Science

University of Bergamo, Department of Literature, Philosophy, Communication

📅 Nov. 2020 – Feb. 2023 📍 Bergamo, Italy

Research project: Efficient algorithms for temporal network analysis.

Visiting Scholar

University of California, Irvine, Department of Computer Science

📅 Aug. – Oct. 2022 📍 Irvine, California, USA

Host: Prof. Wayne B. Hayes.

Postdoctoral Researcher (STaRs) in Computer Science

University of Bergamo, Department of Literature, Philosophy, Communication

📅 May 2018 – Apr. 2020

📍 Bergamo, Italy

Research project: New algorithmic approaches for network decomposition.

Researcher in Quantitative Finance

University of Bergamo, Department of Management, Economics and Quantitative Methods

📅 Nov. 2017 – Jan. 2018

📍 Bergamo, Italy

Research project: Application of data envelopment analysis to finance.

TEACHING EXPERIENCE

Bachelor: General Computer Science

University of Bergamo, Department of Literature, Philosophy, Communication

📅 2023–Present

📍 Bergamo, Italy

Master of Science: Computer Science for Communication

University of Bergamo, Department of Literature, Philosophy, Communication

📅 2023–Present

📍 Bergamo, Italy

Ph.D.: Python and Applications

University of Bergamo, Department of Management, Economics and Quantitative Methods

📅 2024–Present

📍 Bergamo, Italy

Tutor in Informatics

University of Bergamo, Department of Literature, Philosophy, Communication

📅 2018–2022

📍 Bergamo, Italy

SUPERVISION

- Supervised Bachelor's and Master's theses in Informatics.
- Supervised student internship activities.

CONFERENCE ORGANISATION

International Conference on Computational Management Science

[University of Bergamo](#)

📅 June 2017

📍 Bergamo, Italy

International Conference on Stochastic Programming

[University of Bergamo](#)

📅 July 2013

📍 Bergamo, Italy

TECHNICAL SKILLS

Python

Matlab

R

STATA

GAMS

L^AT_EX

RESEARCH INTERESTS

Mathematical Finance

Network Analysis

Machine Learning

Optimization

EDITORIAL ACTIVITIES

- Member of the Editorial Board, *Frontiers in Big Data*.

LANGUAGES

- English (Fluent)
 - Italian (Fluent)
 - Persian (Native)
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RESEARCH PROJECTS

Research Project Participant, PNRR “AGE-IT”

[University of Calabria, Department of Economics, Statistics and Finance](#)

📅 Mar. 2023 – Jan. 2024

📍 Rende, Italy

Data Envelopment Analysis for Portfolio Optimization

[University of Bergamo, Department of Management, Economics and Quantitative Methods](#)

📅 2017–2018

📍 Bergamo, Italy

Pension Fund ALM Optimization

[University of Bergamo & Allianz Investment Management, Munich \(HDQ\), Germany](#)

📅 2015–2016

📍 Bergamo, Italy

PUBLICATIONS

- [1] Riccardo Dondi and Mehdi Hosseinzadeh. “A Network Learning Method for Functional Disability Prediction from Health Data”. In: *IC3K* 1 (2024), pp. 358–362.
- [2] Riccardo Dondi, Mehdi Hosseinzadeh, and Alexandru Popa. “Maximum Letter-Duplicated Subsequence (short paper)”. In: *CEUR WORKSHOP PROCEEDINGS*. Vol. 3811. CEUR-WS. 2024, pp. 340–345.
- [3] Riccardo Dondi, Pietro Hiram Guzzi, Mohammad Mehdi Hosseinzadeh, and Marianna Milano. “Dense subgraphs in temporal social networks”. In: *Social Network Analysis and Mining* 13.1 (2023), p. 128.
- [4] Riccardo Dondi and Mohammad Mehdi Hosseinzadeh. “Colorful path detection in vertex-colored temporal”. In: *Network Science* 11.4 (2023), pp. 615–631.
- [5] Mohammad Mehdi Hosseinzadeh, Sergio Ortobelli Lozza, Farhad Hosseinzadeh Lotfi, and Vittorio Moriggia. “Portfolio optimization with asset preselection using data envelopment analysis”. In: *Central european journal of operations research* 31.1 (2023), pp. 287–310.
- [6] Narges Shirafkan and Mohammad Mehdi Hosseinzadeh. “Presenting a pricing model for the producers of steel with application of Game theory”. In: *International Journal of Data Envelopment Analysis* 1.1 (2023), p. 49.
- [7] Riccardo Dondi, Pietro Hiram Guzzi, and Mohammad Mehdi Hosseinzadeh. “Integrating temporal graphs via dual networks: dense graph discovery”. In: *International Conference on Complex Networks and Their Applications*. Springer. 2022, pp. 523–535.
- [8] Riccardo Dondi, Mohammad Mehdi Hosseinzadeh, and Italo Zoppis. “Dense temporal subgraphs in protein-protein interaction networks”. In: *International Conference on Computational Science*. Springer. 2022, pp. 469–480.
- [9] Mohammad Mehdi Hosseinzadeh, Mario Cannataro, Pietro Hiram Guzzi, and Riccardo Dondi. “Temporal networks in biology and medicine: a survey on models, algorithms, and tools”. In: *Network Modeling Analysis in Health Informatics and Bioinformatics* 12.1 (2022), p. 10.
- [10] Ambroise Baril, Riccardo Dondi, and Mohammad Mehdi Hosseinzadeh. “Hardness and tractability of the γ -complete subgraph problem”. In: *Information Processing Letters* 169 (2021), p. 106105.
- [11] Riccardo Dondi and Mohammad Mehdi Hosseinzadeh. “Dense sub-networks discovery in temporal networks”. In: *SN Computer Science* 2.3 (2021), p. 158.
- [12] Riccardo Dondi and Mohammad Mehdi Hosseinzadeh. “Finding colorful paths in temporal graphs”. In: *International Conference on Complex Networks and Their Applications*. Springer. 2021, pp. 553–565.
- [13] Riccardo Dondi, Mohammad Mehdi Hosseinzadeh, and Pietro H Guzzi. “A novel algorithm for finding top-k weighted overlapping densest connected subgraphs in dual networks”. In: *Applied Network Science* 6.1 (2021), p. 40.
- [14] Riccardo Dondi, Mohammad Mehdi Hosseinzadeh, Giancarlo Mauri, and Italo Zoppis. “Top-k overlapping densest subgraphs: approximation algorithms and computational complexity”. In: *Journal of Combinatorial Optimization* 41.1 (2021), pp. 80–104.
- [15] Mauro Castelli, Riccardo Dondi, and Mohammad Mehdi Hosseinzadeh. “Genetic algorithms for finding episodes in temporal networks”. In: *Procedia Computer Science* 176 (2020), pp. 215–224.
- [16] Riccardo Dondi, Pietro Hiram Guzzi, and Mohammad Mehdi Hosseinzadeh. “Top-k connected overlapping densest subgraphs in dual networks”. In: *International conference on complex networks and their applications*. Springer. 2020, pp. 585–596.
- [17] Mohammad Fallah, Farhad Hosseinzadeh Lotfi, and Mohammad Mehdi Hosseinzadeh. “Discriminant analysis and data envelopment analysis with specific data and Its application for companies in the Iranian stock exchange”. In: *Iranian Journal of Operations Research* 11.1 (2020), pp. 144–156.

- [18] Mohammad Mehdi Hosseinzadeh. “Dense subgraphs in biological networks”. In: *International conference on current trends in theory and practice of informatics*. Springer. 2020, pp. 711–719.
- [19] Riccardo Dondi, Mohammad Mehdi Hosseinzadeh, Giancarlo Mauri, and Italo Zoppis. “Top-k overlapping densest subgraphs: approximation and complexity”. In: *arXiv preprint arXiv:1809.02434* (2018).
- [20] Giorgio Consigli and Mehdi M Hosseinzadeh. “Simulation of long-term returns with stochastic correlations”. In: *International Journal of Finance & Managerial Accounting* 2.6 (2017), pp. 1–9.
- [21] Mohammad Mehdi Hosseinzadeh. “Optimal Asset-Liability Management for Defined Benefit Pension Fund Under Stochastic Correlation”. In: *Aisberg* (2017).
- [22] MA Fariborzi Araghi and MM Hosseinzade. “ABS method for solving fuzzy Sylvester matrix equation”. In: *International Journal of Mathematical Modelling & Computations* 2 (2012), pp. 231–237.
- [23] MA Fariborzi Araghi and MM Hosseinzade. “Solution of general dual fuzzy linear systems using ABS algorithm”. In: *Applied Mathematical Sciences* 6.4 (2012), pp. 163–171.