

CV

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CURRENT ACADEMIC POSITION

Associate Professor of Physics

Shahid Beheshti University, Tehran, Iran

Jul. 2013- present

Research deputy of the physic department, Shahid Beheshti Unibersity,

Tehran, Iran

Jul. 2021-present

Head of the “complex & biological systems group” of the Physics

department at Shahid Beheshti University, Tehran, Iran Dec. 2021-present

PREVIOUS ACADEMIC POSITION

Resident Researcher

Institute for Researches in Fundamental Sciences, (IPM)

2013- 2019

RESEARCH INTEREST

Agent based models in socio-economic systems, time series analysis, collective behaviors in complex and biological systems

HONORS AND AWARDS

• Ashtiani young professors' fellowship awards by National Elites Foundation of Iran

• 2d place in the national collegiate physics Olympiad, Iran

• 1st place in the national entrance exam of graduate program of Iranian universities

ORGANIZATION

Organizer: Second conference of “Econophysics and Complexity Economics”, 2nd -3rd March 2022, University of Tehran, Tehran, Iran

Organizer: First conference of “Econophysics and Complexity Economics”, 3rd -4th March 2021, Shahid Beheshti University, Tehran, Iran,

Organizer: 11th National conference on statistical physics, soft condensed matter, and complex systems, 20,21 January 2021, Shahid Beheshti University, Tehran, Iran

Organizer: “School and conference on conformal field theory and its applications”, Institute for

Researches in Fundamental Sciences, IPM, Tehran, Iran, 24-27 Oct. 2016

Organizer: “Eighth conference of statistical physics, soft condensed matters, and complex systems”,

Esfahan University of Technology, 24-25 Dec. 2015 (annual conference of physics society association of Iran)

OTHER ACTIVITIES

Member of the “committee of policy making for environmental sciences” of Shahid Beheshti University (2016-2018)

PUBLICATIONS

- "The role of communicability geometry of cities in the universality of traffic flows", Sasan Ebrahimabadi, Ali Hosseiny, Jingfang Fan, Abbas Ali Saberi, submitted to Proceedings of the National Academy of Sciences of the United States of America, (PNAS),
- * “Analyzing the heterogeneous structure of the genes interaction network through the random matrix theory”, N Allahyari, A Hosseiny, N Abedpour, GR Jafari, <https://arxiv.org/abs/2107.13300>

Under review in PLoS One

- “The response of the competitive balance model to the external field” F Oloomi, A Kargaran, A Hosseiny, GR Jafari, Under review in PLoS One

- "The structure balance of gene-gene networks beyond pairwise interactions" N Allahyari, A Kargaran, A Hosseiny, GR Jafari, PloS one 17 (3), e0258596 **(2022)**

- * "Mean-field solution for critical behavior of signed networks in competitive balance theory" R Masoumi, F Oloomi, A Kargaran, A Hosseiny, GR Jafari, Physical Review E 103 (5), 052301 10 **(2021)**

- "Competitive balance theory: Modeling conflict of interest in a heterogeneous network" F Oloomi, R Masoumi, K Karimipour, A Hosseiny, GR Jafari, Physical Review E 103 (2), 022307 12 **(2021)**

- "Analysis of the global banking network by random matrix theory" A Namaki, R Raei, J Ardalankia, L Hedayatifar, A Hosseiny, E Haven, ..., Frontiers in Physics 8, 586561 5 **(2021)**

- "Coupled criticality analysis of inflation and unemployment" Z Koochi Lai, A Namaki, A Hosseiny, G Jafari, M Ausloos, Entropy 23 (1), 42 3 **(2020)**

- "Quartic balance theory: Global minimum with imbalanced triangles" A Kargaran, M Ebrahimi, M Riazi, A Hosseiny, GR Jafari, Physical Review E 102 (1), 012310 17 **(2020)**

- "Optimization of the post-crisis recovery plans in scale-free networks" M Bahrami, N Chinichian, A Hosseiny, G Jafari, M Ausloos Physica A: Statistical Mechanics and its Applications 540, 123203 19 **(2020)**

- "Hysteresis of economic networks in an XY model" A Hosseiny, M Absalan, M Sherafati, M Gallegati, Physica A: Statistical Mechanics and its Applications 513, 644-652 7 **(2019)**

- "Non-criticality of interaction network over system's crises: A percolation analysis" AH Shirazi, AA Saberi, A Hosseiny, E Amirzadeh, P Toranj Simin, Scientific reports 7 (1), 1-8 8 **(2017)**

- * “A geometrical imaging of the real gap between economies of China and the United States”, Ali Hosseiny, Physica A, 479, 151-161, (2017)
- “Role of intensive and extensive variables in a soup of firms in economy to address long run prices and aggregate data”, Ali Hosseiny, Mauro Gallegati, Physica A, 470, 51-59 (2017)
- “Metastable Features of Economic Networks and Responses to Exogenous Shocks” A Hosseiny, M Bahrami, A Palestrini, M Gallegati, Plos One, 11, e0160363 (2016)
- “Fractional Galilean Symmetries”, A. Hosseiny and Shahin Rouhani, Nucl. Phys. B. 910, 336-345 (2016)
- “A picture for the coupling of unemployment and inflation”, H. Safdari, A. Hosseiny, SV Farahani, G.R. Jafari, Physica A: Statistical Mechanics and its Applications 444, 744-750 (2016)
- “Possible Central Extensions of Non-Relativistic Conformal Algebras in 1+1 Ali Hosseiny” , J. Math. Phys 55 (6), 061704 (2014)
- ” Logarithmic Exotic Conformal Galilean Algebras” Malte Henkel, Ali Hosseiny, Shahin Rouhani, Nucl. Phys. B879, 292-317 (2014)
- “On Holographic Realization of Logarithmic GCA”, A. Hosseiny and A. Naseh, J. Math. Phys. 52, 092501 (2011)
- ”Logarithmic Correlators in Non-relativistic Conformal Field Theory” A. Hosseiny and S. Rouhani, J. Math. Phys. 51, 102303 (2010)
- “Affine extension of Galilean conformal algebra in 2+1 dimensions” A Hosseiny, S Rouhani, J. Math. Phys. 51 (5), 052307 (2010)