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Contact Information

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Educations

- Ph.D. Iran University of Science and Technology, Tehran, Iran, 2006-2012
- M.Sc. Iran University of Science and Technology, Tehran, Iran, 2004-2006
- B.Sc. Amirkabir University of Technology, Tehran, Iran, 2000-2004

Research Interests

- Stochastic processes
- Markov chains
- Information theory
- Probability

Recent Publications

- Z. Nikooravesh, "Generalized entropy for random walks in regular networks and graphs as a super diffusion", Bulletin of the Transilvania University of Brasov. Series III: Mathematics and Computer Science, 2(64) (2022), 197-208.
- Z. Nikooravesh and J. Tayyebi, "A linear programming-based approach to estimate" discrete probability functions with given

quantiles”, Pakistan journal of statistics and operation research, 16(4)(2020), 839-849.

- Z. Nikooravesh, “Maximum entropy for determining the transition probability matrix of a Markov chain with a specified stationary distribution”, Thailand Statistician, 18(2) (2020), 235-242.
- Z. Nikooravesh, “Estimation of the probability function under special moments conditions using the maximum Shannon and Tsallis entropies”, Chilean Journal of Statistics, 9, No 2 (2018), 55-64.
- Z. Nikooravesh, “On Tsallis Relative Entropy Rate of Hidden Markov Models”, J. Statist. Res. Iran 15, No 1 (2018), 83-98.
- G.H. Yari and Z. Nikooravesh, “Estimation of the Entropy Rate of Ergodic Markov Chains”, JIRSS (2012) Vol. 11, No. 1, 75-85.
- G.H. Yari and Z. Nikooravesh, “Relative Entropy Rate between a Markov Chain and Its Corresponding Hidden Markov Chain”, J. Statist. Res. Iran 8, No 1, (2011), 97-109.
- G.H. Yari and Z. Nikooravesh, “Taylor Expansion for the Entropy Rate of Hidden Markov Chains”, J. Statist. Res. Iran 7, No 2 (2010), 103–120.

- ز. نیکوروش، ط. نیکوروش و ع. مهرآور "پیش بینی میزان رشد ازدواج و طلاق به کمک شبکه عصبی (مطالعه موردی: استان خراسان جنوبی)" مجله جمعیت ۲۳(۹۷) - (۱۳۹۵)، ۶۹-۸۶.

Seminar articles and talk

- Z. Nikooravesh, “Investigation of generalized entropy of the process of random walking on graphs”, 52th Annual Iranian Mathematics Conference (AIMC52) 30Agu-2Sep 2021, Kerman, Iran
- Z. Nikooravesh, “On the Tsallis entropy rate of hidden Markov chains”, 51th Annual Iranian Mathematics Conference (AIMC51), 16-19, Feb 2021, University of Kashan, Iran.
- Z. Nikooravesh, “Generalized entropy for super diffusion walks in graphs”, 51th Annual Iranian Mathematics Conference (AIMC51), 16-19, Feb 2021, University of Kashan, Iran
- S. Akbari Hajiabad and Z. Nikooravesh, “The maximum Tsallis entropy problem using q-exponential distributions”, 49th Annual Iranian Mathematics Conference (AIMC49), 23-26 August 2018, Iran University Science and Technology, Thehran, Iran.
- Z. Nikooravesh, “Estimation of the quantiles function of maximum entropy using weighted moments”, 14th Iranian

Statistics Conference, Shahrood university of technology, 25-27 August 2018, Shahrood, Iran

- S. Ashoori and Z. Nikooravesh, "Estimation of the entropy rate of Markov chains", 9th National Conference on Mathematics of PNU, 18-19-October 2017, Kerman, Iran.
- Z. Nikooravesh, "Tsallis and Shannon relative entropy rates for stochastic processes", 9th National Conference on Mathematics of PNU, 18-19-October 2017, Kerman, Iran.
- Z. Nikooravesh and Z. Ebrahimi, "Maximum entropy to determine the probability transition matrix of Markov chains with a definite stationary distribution", 9th National Conference on Mathematics of PNU, 18-19-October 2017, Kerman, Iran.
- Z. Nikooravesh and J. Tayyebi "Estimation of discrete probability functions with specified entropy and quartiles", The 11th Seminar on Probability and Stochastic Processes, 30-31 August 2017, International Imam Khomeini University, Qazvin, Iran.
- Z. Ebrahimi, Z. Nikooravesh and J. Tayyebi "Maximum entropy distribution under conditions of moments and quartiles", The 11th Seminar on Probability and Stochastic Processes, 30-31 August 2017, International Imam Khomeini University, Qazvin, Iran.
- M. Kargar Shahri and Z. Nikooravesh, "Calculation of Shannon, Renyi, Tsallis, Sharma-Mittal, Supra-Extensive entropy for M / M / C / S queuing system", 46th Annual Iranian Mathematics Conference (AIMC 46), 25-28 August 2015, Yazd University, Iran
- Z. Nikooravesh, "A measure of relative entropy rate between two stochastic processes with an application in speech recognition", 2nd Workshop on Information Measures and Their Applications, 28-29 January 2015, Ferdowsi University of Mashhad, Iran.
- Z. Nikooravesh, "Mutual information rate for two stochastic processes", The 9th Seminar on Probability and Stochastic Processes, 11-12 September 2013, University of Sistan and Baluchestan, Zahedan, Iran.
- Z. Nikooravesh, "Relative entropy rate and efficiency of methods in visual speech recognition", 5th Iranian Conference on Applied Mathematics, 8-10 September 2013, Hamedan, Iran.
- Z. Nikooravesh, "The maximum of the relative entropy rate", 44th Annual Iranian Mathematics Conference (AIMC44), 27-30 August 2013, Mashhad, Iran.
- G.H. Yari and Z. Nikooravesh, "On the entropy rate of ergodic Markov chains", 41th Annual Iranian Mathematics Conference (AIMC41), 12-15 September 2010, University of Urmia, Urmia, Iran.

- G.H. Yari and Z. Nikooravesh, “On the entropy of hidden Markov chains by Taylor approximation”, 40th Annual Iranian Mathematics Conference, Tehran, Iran, (AIMC40) September 2009, Sharif university, Tehran, Iran.
- G.H. Yari and Z. Nikooravesh, “Shannon entropy convergence of Markov chains”, 39th Annual Iranian Mathematics Conference (AIMC39) September 2008, Kerman, Iran.
- G.H. Yari and Z. Nikooravesh, “Henkel matrices and the conditions for the solution of the maximum entropy method for the problem of moments”, 9th Iranian Statistics Conference, September 2008, Isfahan, Iran.
- G.H. Yari and Z. Nikooravesh, “Maximum entropy method and stationary density function”, 38th Annual Iranian Mathematics Conference (AIMC38) 3-6 September 2007, Zanzan, Iran.

Teaching Experience

- Calculus I,
- Calculus II,
- Differential Equations,
- Numerical Analysis,
- Engineering Probability and Statistics
- Mathematical Analysis
- Probability Theory
- Real Analysis
- Stochastic Processes.