

# Curriculum Vita of Vahid Karimipour

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## 1 Biodata

- First Name: Vahid
  - Surname: Karimipour
  - Date of Birth: 1961
  - Nationality: Iranian
  - Place of Birth: Khorramabad-Iran
  - Marital Status: Married, two children
  - Permanent Address: Department of Physics, Sharif University of Technology, P.O. Box 11155-9161, Tehran, Iran.
  - Electronic Address: Vahid@sharif.edu
  - webpage: <http://sharif.ir/~vahid/>
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## 2 Formal Education

- B.S. Electrical Engineering (1987); Shiraz University; Shiraz, Iran
  - M.S. Physics (1989); Sharif University of Thechnology; Tehran, Iran
  - Phd. Physics (1993); Sharif University of Thechnology; Tehran, Iran  
Title of Phd dissertation : (Nonstandard Deformation of the Lie groups)
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### 3 Positions

- Professor of Physics (2001-); Sharif University of Thechnology, chairman of the department(2009-)
  - Chair of the Quantum Information Science branch, Physical Society of Iran (2020-);
  - Chair of the Department of Physics, Sharif University of Technology, (2009-2012);
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### 4 Awards

- Member of TWAS (The World Academy of Sciences for the development of science in developing countries<https://twas.org/>)
  - Outstanding referee of the Americal Physical Society, selected in 2013. (A long-life designation) <https://journals.aps.org/OutstandingReferees>
  - Member of the Iranian Accademy of Sciences
  - Regular Associate (1998-2003) and (2006-2012): Abdus Salam International Center for Theoretical Physics (ICTP) italy.
  - Simons Associate (2015-2023) Abdus Salam International Center for Theoretical Physics (ICTP) italy.
  - Distinguished award of the Iranian Physical Society (1993) for the Phd dissertation.
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### 5 Research Fields of Interests

- Quantum Information and Quantum Computation (Topological quantum computation, Quantum State Transfer, Quantum Networks, Entanglement properties of many-body system, Open quantum systems, Entanglement theory.
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## 6 Editorial Activities

- Member of the Editorial Board, European Physical Journal D (EPJD)
  - Member of the Editorial Board, International Journal of Quantum Information, World Scientific
  - Member of the Editorial Board, Turkish Journal of Physics, TUBITAK
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## 7 Organizational Activities

- Organizer and general chair of the series of Iran International Conference in Quantum Information (IICQI) and Iran International Summer School in Quantum Information (IISSQI)
  - Co-Director, Advanced School and Workshop on Quantum Science and Quantum Technologies. ICTP, Trieste, Italy, 2017.
  - Co-Director, Advanced School on Ubiquitous Quantum Physics: the New Quantum Revolution and Workshop on Ubiquitous Quantum Physics: the New Quantum Revolution, ICTP, Trieste, Italy, 2019.
  - Advisor for " School on New Trends in Quantum Dynamics and Quantum Entanglement (smr2224), 14-25 Feb. 2011, ICTP, Italy".
  - IICQI-07 7-10 Sept. 2007, Kish Island, Iran. <http://iicqi-10.sharif.ir/iicqi-07/iicqi07.htm>
  - IISSQI-08 13-27 Sept. 2008, Kish Island, Iran, <http://iissqi-08.sharif.ir/>
  - IICQI-10 11-14 Sept. 2010, Kish Island, Iran, <http://iicqi-10.sharif.ir/>
  - IICQI-12 Sept. 2012, <http://iicqi-12.sharif.ir/>
  - IICQI-14 Sept. 2014, <http://iicqi-14.sharif.ir/>
  - IICQI-18 Sept. 2018, <http://iicqi-18.sharif.ir/>
  - IICQI-20 Sept. 2020, <http://iicqi-20.sharif.ir/>
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## 8 Reviewing activities

Referee for the following journals:

- Science
  - Physical Review Letters
  - Physical Review
  - New Journal of Physics (NJP)
  - Journal of Physics A
  - Physics Letters A
  - Journal of Statistical Physics,
  - Quantum Information Processing
  - Scientific Reports
  - International Journal of Quantum Information
  - International Journal of Theoretical Physics.
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## 9 Invited Plenary Lectures in national conferences

- Iranian Annual Physics Conference (1994); Kermanshah. (Title: Quantum Groups and Physics)
- Iranian Annual Mathematics Conference (1996); Kerman. (Title: Differential Geometry on Quantum Groups)
- Iranian Annual Physics Conference (1997); Rasht. (Title: Recent developments in Mathematical Physics: Topological field theory and Knot theory)
- Iranian Annual Physics Conference (2005); Shahrood. (Title: Quantum Computation and Quantum Information )
- Annual Conference in condensed matter physics (2011), Institute of Advanced Studies in Basic Sciences, Gava Zang, Zanjan, title: Linking classical and quantum stochastic processes.

- IPM Spring Conference (2012), Institute of Research in Fundamental Sciences (IPM), , title: Topological Quantum Computation.
- Workshop in the future of computer sciences (2012), Iran Academy of Sciences, Tehran, Iran, title: Perspective on quantum computation and quantum information.
- 23rd Iranian Conference in Optics and Photonics (ICOP)2017, title: Quantum Mechanics in the New Century
- Iranian Annual Physics Conference (2021); Tehran (Title: Quantum Simulation )

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## 10 Invited Lectures in International Conferences and Schools

- Four lectures on Matrix Product States in " Summer School on Decoherence, Entanglement and Entropy, August 2009, Oxford Kobe Institute (**Kobe, Japan**)".
- Invited lecture: 25th Regional Conference in Mathematical Physics, **Antalia, Turkey**, October 2010."
- Lecture in the inauguration conference of ICTP-ECAR, **Izmir, Turkey** <http://ictp-ecar.org>, 5-7 May, 2014.
- Two lectures in Lahore University on Topological Quantum Computation, **Pakistan**, October, 2019.
- Lecture on Static Quantum Circuit for Quantum Computation, 25th International Annual Laser Physics Workshop, **Yerevan, Armenia**, 2016.
- Quantifying the coherence power of quantum operations, Invited lecture in Asia-Pacific Conference and Workshop in Quantum Information Science, 2016, **Baku, Azerbayejan**.
- Time independent Quantum Circuits  
Quantum 2017: From Foundations of Quantum Mechanics to Quantum Information and Quantum Metrology and Sensing, **Turin, Italy**, 7-13 May, 2017,
- Using entanglement to for secure alignment of coordinate systems  
**26th Annual International Laser Physica Workshop (Kazan, July 17-21, 2017,)**
- Topological order and topological quantum computation  
New Advances in Condensed Matter Physics: Quantum transport, topological effects and energy conversion in low-dimensional systems, 20-28 September 2017, **Khiva, Uzbekistan**,

- Secure alignment of directions  
Asia-Pacific Conference and Workshop on Quantum Information Science, 26-29 September 2017, **Uzbekistan**,
- A short review of classical and quantum cryptography  
TUD-CIIT International mini school on quantum and ultrafast optics, theory and experiment  
COMSATS Institute of Information Technology (CIIT), 4-6 October 2017, **Islamabad, Pakistan**.
- Sequential quantum secret sharing  
TUD-CIIT International mini school on quantum and ultrafast optics, theory and experiment  
COMSATS Institute of Information Technology (CIIT), 4-6 October 2017, **Islamabad, Pakistan**.
- Two invited talks (Entanglement distribution with separable states) and (Time independent quantum circuits with local interactions), KIAS 2017 Workshop on Quantum Information Science, Nov 27 - Dec 8, 2017, KIAS, **Seoul, Korea**
- Two lectures in Eastern Mediterranean University, **Northern Cyprus**, March 2019, on Quantum Simulation of Physical Systems and on Topological Quantum Computation.
- Lecture on quantum key distribution with no shared reference frame, in Quantum 2019 Workshop, From Foundations of Quantum Mechanics to Quantum Information and Quantum Metrology and Sensing, 26th May-2 June 2019, **Turin, Italy**
- Summer School in New Advances in quantum information science and quantum technology, 9-20 September 2019 **Samarkhand, Uzbekistan**
- Lecture on topological quantum computation, in Trieste Quantum Junior Days, July 2019, **Trieste, Italy**
- An introduction to quantum information, Winter College on Optics: Quantum Photonics and Information, (smr 3424), February 2020, **ICTP, Italy**.
- Lecture on quasi-inversion of qubit channels, in Workshop on quantum computation and quantum control, Shanghai University, 2-5 January 2020 **Shanghai, China** .
- Lecture on "An introduction to quantum computation and information, African School of Fundamental Physics and Applications, **Online lecture**" <https://indico.cern.ch/event/1060503/timetable/?view=standard>,
- 30 September 2021, **Online Lecture American Physical Society, Forum on International Physics**,  
Title: New Horizons in Quantum Mechanics,  
<https://engage.aps.org/fip/blogs/christine-marie-therese-darve1/2021/09/01/physics-matters-new-horizons-in-quantum-mechanics?CommunityKey=3c4c01e3-d28f-4339-9c6d-8fd1e1afed02>

- On Quasi-Inversion of Quantum Channels 2 in 2 and in Higher Dimensions ,52-th Symposium on Mathematical Physics, "Channels, Maps and All That", Turon, **Poland**
- Six lectures on varioius topics in quantum information theory, School in Quantum Photonics, Principles and Applications, 13-16 March, 2023 **Tubitak, Turkey**
- Capacities of covariant Pauli Channels, Quantum 2023, 11-15 September 2023, **Turin-Italy** .
- Quantum Information, Quantum Channels and Symmetries , Asia Pacific Physics Week, **South Korea, 2023, 11 October (online)**
- The noisy Landau-Streater Channel and its properties, The 15th Symposium on Quantum Information, 16-18 May 2024, Sopot, Poland

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## 11 Teaching Experience at the graduate level (1994-)

- Advanced Quantum Mechanics
  - Advanced Statistical Mechanics
  - Modern Mathematical Physics
  - Quantum Field Theory
  - Statistical field theory
  - Group Theory and Lie algebra
  - Quantum computation
  - Quantum information
  - Critical Phenomena.
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## 12 A number of my former students who got their PhD and Master with me, and their current positions

- A. Langari-PhD, Professor of Physics, Sharif University of Technology, Tehran, Iran.
- A. Bayat-PhD, Professor, University of Electronic Science and Technology of China (UESTC), Chengdu, China.
- F. Jafarpour-PhD, Professor of Physics, Bu Ali University, Hamedan, Iran.
- M. Asoudeh-PhD, Assistant professor of Physics, Azad University, Tehran, Iran.
- E. Fouladvand-PhD, Associate professor of Physics, Zanzan University, Zanzan, Iran.
- L. Memarzadeh-PhD, Associate professor of Physics, Sharif University of Technology, Tehran, Iran.
- A. Rezakhani-PhD, Associate professor of Physics, Sharif University of Technology, Tehran, Iran.
- M. H. Zarei-PhD, Assistant professor of Physics, Shiraz University, Shiraz, Iran.
- A. Ramezanpour-PhD, Assistant professor of Physics, Shiraz University, Shiraz, Iran.
- A. Mani-PhD, Assistant professor of Physics, Tehran University, Tehran, Iran.
- N. Majd-PhD, Assistant professor of Physics, Tehran University, Tehran, Iran.
- S. Alipour-PhD, Post-doc, Tempere University, Finland.
- Tahereh Abad-PhD, Researcher, Department of Microtechnology and Nanoscience, Chalmers University of Technology, Sweden.
- Mina Doosti-Ms Assistatn Professor of Physics, University of Edinburgh, Scotland.
- Razieh Mohseninia-Ms Senior data scientist, VideoAmp, Los Angeles, California, USA.
- Zahra Raissi-PhD Assistatn Professor of Physics, Institute for Photonic Quantum Systems (PhoQS), Paderborn University, Germany.
- Alireza Bahraminasab-Ms Master Founder, CEO at XUM Enterprise Ltd, Manchester, UK.
- Fereshteh Ghahari-Ms Assistant Professor of Physics, Columbia University, USA.
- Iman Marvian-Ms Assistant Professor of Physics, Duke University, USA.
- Milad Marvian-Ms Assistant Professor of Physics, University of New Mexico, USA.
- Saber Bagherinezhad-Ms Staff Software Engineer at Google, San Francisco, California, USA.



## 13 List of Journal Publications

1. Abolfazl Farmanian and Vahid Karimipour, Quantum speed limits for implementation of unitary transformations, **Physical Review A** 110 (4), 042611 (2024)
2. Vahid Karimipour, Noisy Landau-Streater and Werner-Holevo channels in arbitrary dimensions, **Physical Review A**, A 110 (2), 022424 (2024)
3. Shayan Roofeh and Vahid Karimipour, The noisy Werner-Holevo channel and its properties, **Physical Review A** A 109 (5), 052620, (2024)
4. Azam Mani, Fatemeh Rezazadeh, Vahid Karimipour, Quantum coherence between subspaces: State transformation, Cohering Power,  $k$ -coherence and other properties, **Physical Review A** 109 (1), 012435 (2024).
5. V Jannessary, F Rezazadeh, S Raeisi, V Karimipour, Witnessing entanglement of remote particles with incomplete teleportation **Physical Review A** , 108 (4), 042421, 2023
6. A Poshtvan, V Karimipour, Capacities of the covariant Pauli channel,**Physical Review A** 106 (6), 062408, 2022.
7. V Karimipour, On Quasi-Inversion of Quantum Channels in 2 and in Higher Dimensions, **Open Systems Information Dynamics** 29 (03), 2250014
8. O. Heibati, A. Mani, E. Faizi, and V. Karimipour, Protecting unknown qubit states from decoherence of qubit channels by weak measurement, **Journal of Physics A: Mathematical and Theoretical** 55 (23), 235301
9. F. Shahbeigi, M. Karimi, and V. Karimipour, Simulating of X-states and the two-qubit XYZ Heisenberg system on IBM quantum computer, **Physica Scripta** 97 (2), 025101
10. M. M. R. Koochakie, V. Jannesary, and V. Karimipour, GHZ states as near-optimal states for reference frame alignment, **Quantum Information Processing** 20 (10), 1-19
11. F. Shahbeigi, K. Sadri, M. Moradi, K. Zyczkowski, and V. Karimipour, Quasi-inversion of quantum and classical channels in finite dimensions, **Journal of Physics A: Mathematical and Theoretical** 54 (34), 345301
12. V. Karimipour, Modern quantum mechanics, why we need it, how to use it? **Turkish Journal of Physics** 45 (5), 218-246

13. S. Emamipanah, M. Asoudeh, and V. Karimipour, Entangled states as robust and re-usable carriers of information,  
**Quantum Information Processing** 19 (10), 1-15
14. M. Doroudiani, and V. Karimipour, Planar maximally entangled states,  
**Physical Review A** 102 (1), 012427
15. V. Karimipour, R. Floreanin and V. Quasi-Inversion of qubit channels,  
**Physical Review A** 101 (3), 032109
16. Fatemeh Rezazadeh, Azam Mani and Vahid Karimipour  
Quantum key distribution with no shared reference frame,  
**Quantum Information Processing** 19 (2), 54 (2020)
17. Morteza Moradi and Vahid Karimipour  
Generation of quantum states by the dynamics of spin chains: Analytical solution,  
**Phys. Rev. A** 99, 052115 (2019)
18. Ali Beheshti, Sadegh Raeisi, and Vahid Karimipour Entanglement-assisted communication in the absence of shared reference frame,  
**Phys. Rev. A** 99, 042330 (2019)
19. F. Rezazadeh, A. Mani, V. Karimipour, Power of a shared singlet state in comparison to a shared reference frame,  
**Physical Review A** 100 (2), 022329.
20. Roozbeh Basirian, Sadra Boreiri, Vahid Karimipour Computing on Quantum Shared Secrets for General Access Structures, Quantum Information Processing,  
**Quantum Information Processing** (2019) 18:109.
21. Mina Doosti, Farzad Kianvash, Vahid Karimipour  
Universal superposition of arbitrary orthogonal state  
**Physical Review A** Phys. Rev. A 96, 052318 (2017).
22. Tahereh Abad, Klaus Mlmer, and Vahid Karimipour  
Sequentially generated entanglement, macroscopicity and squeezing in a spin chain  
**Phys. Rev. A** 96, 042337 (2017)
23. F. Rezazadeh, A. Mani, and V. Karimipour  
Secure alignment of coordinate systems by using quantum correlation  
**Phys. Rev. A** 96, 022310 (2017)
24. Zahra Raissi, and Vahid Karimipour  
Creating Maximally Entangled States by Gluing  
**Quant. Inf. Process.** 16, 81 (2017).

25. Sahand Seifnashri, Farzad Keyanvash, Jahangir Nobakht, and Vahid Karimipour  
Time independent quantum circuits with local interactions  
**Phys. Rev. A 93, 062342 (2016)**
26. M Soleimanifar, V Karimipour  
No-go theorem for iterations of unknown quantum gates  
**Physical Review A 93 (1), 012344**
27. R Mohseninia, V Karimipour  
Quantum non-Abelian Potts model and its exact solution  
**Physical Review B 93 (3), 035127.**
28. T Abad, V Karimipour  
Scaling of macroscopicity close to a quantum phase transition  
**Physical Review B, 93, 195127 (2016).**
29. A Mani, V Karimipour  
Cohering and decohering power of quantum channels  
**Physical Review A 92 (3), 032331 .**
30. V Karimipour, L Memarzadeh, NT Bordbar  
Systematics of entanglement distribution by separable states  
**Physical Review A 92 (3), 032325 .**
31. V Karimipour, M Asoudeh  
Quantum secret sharing and random hopping: Using single states instead of entanglement  
**Physical Review A 92 (3), 030301.**
32. R Mohseninia, SS Jahromi, L Memarzadeh, V Karimipour  
Quantum phase transition in the  $Z_3$  Kitaev-Potts model  
**Physical Review B 91 (24), 245110 .**
33. Azam Mani, V. Karimpour, L. Memarzadeh  
A comparison of parallel and anti-parallel two qubit mixed states  
**Phys. Rev. A 91, 012304 (2015)**
34. M. Asoudeh, V. Karimipour  
Perfect State Transfer on Spin-1 Chains  
**Quantum Inf Process, DOI 10.1007/s11128-013-0676-8**
35. V. Karimpour, L. Memarzadeh, P. Zarkeshian  
The Kitaev-Ising model, Transition between topological and ferromagnetic order  
**Phys. Rev. A 87, 032322 (2013).**

36. T. Abad, V. Karimipour, L. Memarzadeh,  
Power of quantum channels for creating quantum correlations,  
**Phys. Rev. A** **86**, 062316 (2012).
37. Fabio Benatti, Roberto Floreanini, V. Karimipour,  
Noise effects in perfect transmission of quantum states,  
**Phys. Rev. A** **86**, 062335 (2012).
38. V. Karimipour, M. H. Zarei,  
An algorithmic proof for the completeness of two-dimensional Ising model,  
**Phys. Rev. A** **86**, 052303 (2012).
39. V. Karimipour, M. H. Zarei,  
Completeness of classical  $\phi^4$  theory on 2D lattices,  
**Phys. Rev. A** **85**, 032316 (2012).
40. V. Karimipour, M. Sarmadi Rad, and M. Asoudeh,  
Perfect State Transfer in Two and Three Dimensional Structures,  
**Phys. Rev. A**, **85**, 010302(Rapid Communications) (2012).
41. V. Karimipour, M. Marvian,  
Secure quantum carriers for quantum state sharing,  
**International Journal of Quantum Information (IJQI)**, Vol. 10, No. 2 (2012) 1250018.
42. V. Karimipour, L. Memarzadeh and A. Mani,  
Characterization of qutrit channels in terms of their covariance  
and symmetry properties, **Phys. Rev. A** **84**, 012321 (2011).
43. V. Karimipour  
A complete characterization of the spectrum of the Kitaev  
model on spin ladders, **Phys. Rev. B** **79**, 214435 (2009).
44. Vahid Karimipour, Zohreh Meghdadi, Laleh Memarzadeh  
New Phase Transitions in Optimal States for Memory Channels,  
**Physical Review A**, **79**, 032321 (2009).
45. S. Alipour, S. Baghbanzadeh, V. Karimipour  
Exact symmetry breaking ground states for quantum spin chains,  
**Euromphysics Letters (EPL)**, **84** (2008) 67006.
46. Karimipour V, Memarzadeh L  
Matrix product representations for all valence bond states  
**Physical Review B** **77**, 094416 (2008).

47. Alipour S, Karimipour V, Memarzadeh M  
Exact ground states for two new spin-1 quantum chains,  
**European Physics Journal B**, vol 62, no. 2, pp. 159-169, 2008 2008.
48. Karimipour V, Memarzadeh L  
Matrix product representations for all valence bond states  
**Physical Review B** 77, 094416 (2008).
49. Alipour S, Karimipour V, Memarzadeh M  
Exact ground states for two new spin-1 quantum chains,  
new features of matrix product states  
**European Physics Journal B**, vol. 62, no. 2, pp. 159-169, 2008.
50. Asoudeh M, Karimipour V, Sadrolashrafi A  
Exact dimer ground states for a continuous family of quantum spin chains and zigzag ladders  
**Physical Review B** 76 (6): Art. No. 064433 AUG 2007.
51. Asoudeh M, Karimipour V, Sadrolashrafi A  
Entangled rings, matrix product states, and exact solutions of XYZ spin chains,  
**Physical Review A** 76 (1): Art. No. 012320 JUL 2007.
52. Asoudeh M, Karimipour V, Sadrolashrafi A  
A Quantum phase transitions and matrix product states in spin ladders,  
**Physical Review B** 75 (22): Art. No. 224427 JUN 2007.
53. Alipour S, Karimipour V, Memarzadeh L  
Entanglement and quantum phase transitions in matrix-product spin-1 chains,  
**Physical Review A** 75 (5): Art. No. 052322 MAY 2007.
54. Ghahari F, Karimipour V, Shahrokhshahi R  
Dynamics of entanglement of bosonic modes on symmetric graphs,  
**Physics Letters A** 363 (4): 271-276 APR 2 2007.
55. Bayat A, Karimipour V  
Transfer of d-level quantum states through spin chains by random swapping,  
**Physical Review A** 75 (2): Art. No. 022321 FEB 2007.
56. Karimipour V, Memarzadeh L  
Entanglement and optimal strings of qubits for memory channels,  
**Physical Review A** 74 (6): Art. No. 062311 DEC 2006.

57. Karimipour V, Memarzadeh L  
Transition behavior in the capacity of correlated noisy channels in arbitrary dimensions,  
**Physical Review A** 74 (3): Art. No. 032332 SEP 2006.
58. Karimipour V  
Reply to "Comment II on 'Quantum secret sharing based on reusable Greenberger-Horne-Zeilinger states as secure carriers' "  
**Physical Review A** 74 (1): Art. No. 016302 JUL 2006.
59. Asoudeh M, Karimipour V  
Thermal entanglement of spins in mean-field clusters,  
**Physical Review A** 73 (6): Art. No. 062109 JUN 2006.
60. Bayat A, Karimipour V, Marvian I  
Threshold distances for transmission of EPR pairs through Pauli channels,  
**Physics Letters A** 355 (2): 81-86 JUN 26 2006.
61. Karimipour V, Memarzadeh L  
Equi-entangled bases in arbitrary dimensions,  
**Physical Review A** 73 (1): Art. No. 012329 JAN 2006.
62. Karimipour V  
Reply to "Comment on 'quantum key distribution for d-level systems with generalized Bell states' " ,  
**Physical Review A** 72 (6): Art. No. 066302 DEC 2005.
63. Karimipour V, Majd N  
Exact solutions for a universal set of quantum gates on a family of isospectral spin chains,  
**Physical Review A** 72 (5): Art. No. 052305 NOV 2005.
64. Karimipour V  
Reply to "Comment on 'Quantum secret sharing based on reusable Greenberger-Horne-Zeilinger states as secure carriers' ",  
**Physical Review A** 72 (5): Art. No. 056301 NOV 2005.
65. Asoudeh M, Karimipour V  
Entanglement of bosonic modes in symmetric graphs,  
**Physical Review A** 72 (3): Art. No. 032339 SEP 2005.
66. Bayat A, Karimipour V  
Thermal effects on quantum communication through spin chains,  
**Physical Review A** 71 (4): Art. No. 042330 APR 2005.

67. Asoudeh M, Karimipour V  
Thermal entanglement of spins in an inhomogeneous magnetic field,  
**Physical Review A** 71 (2): Art. No. 022308 FEB 2005.
68. Asoudeh M, Karimipour V  
Thermal entanglement of spins in the Heisenberg model at low temperatures,  
**Physical Review A** 70 (5): Art. No. 052307 NOV 2004.
69. Mashaghi AR, Ramezanpour A, Karimipour V  
Investigation of a protein complex network,  
**European Physics Journal B** 41 (1): 113-121 SEP 2004.
70. Karimipour V, Majd N  
Exact solutions for universal holonomic quantum gates,  
**Physical Review A** 70 (1): Art. No. 012320 JUL 2004.
71. Asoudeh M, Karimipour V, Memarzadeh L, Rezakhani AT  
On a suggestion relating topological and quantum mechanical entanglements,  
**Physics Letters A** 327 (5-6): 380-390 JUL 12 2004.
72. Mashaghi A, Ramezanpour A, Karimipour V  
Structural properties of *Saccharomyces cerevisiae* protein complex network,  
**Biophysics Journal** 86 (1): 605A-605A Part 2 Suppl. S JAN 2004.
73. Asoudeh M, Karimipour V, Memarzadeh L, Rezakhanni AT  
Symmetrization and entanglement of arbitrary states of qubits,  
**Physics Letters A** 313 (5-6): 330-337 JUL 14 2003.
74. Ramezanpour A, Karimipour V, Mashaghi A  
Generating correlated networks from uncorrelated ones,  
**Physical Review E** 67 (4): Art. No. 046107 Part 2 APR 2003.
75. Bagherinezhad S, Karimipour V  
Quantum secret sharing based on reusable Greenberger-Horne-Zeilinger states as secure carriers,  
**Physical Review A** 67 (4): Art. No. 044302 APR 2003.
76. Karimipour V, Rezakhani AT  
Generation of phase-covariant quantum cloning.  
**Physical Review A** 66 (5), 052111.
77. Karimipour V  
General reaction-diffusion processes with separable equations for correlation functions,  
**Physical Review E** 66 (4): Art. No. 041114 Part 1 OCT 2002.

78. Ramezanpour A, Karimipour V  
Simple models of small-world networks with directed links,  
**Physical Review E** 66 (3): Art. No. 036128 Part 2A SEP 2002.
79. Karimipour V, Bahraminasab A, Bagherinezhad S  
Quantum key distribution for d-level systems with generalized Bell states,  
**Physical Review A** 65 (5): Art. No. 052331 Part A MAY 2002.
80. Karimipour V, Bahraminasab A, Bagherinezhad S  
Entanglement swapping of generalized cat states and secret sharing,  
**Physical Review A** 65 (4): Art. No. 042320 Part A APR 2002.
81. Karimipour V, Ramzanpour A  
Correlation effects in a simple model of a small-world network,  
**Physical Review E** 65 (3): Art. No. 036122 Part 2A MAR 2002.
82. Karimipour V, Seradjeh SBH  
A new class of models for surface relaxation with exact stationary measures,  
**Europhysics Letters** 57 (5): 658-664 MAR 2002.
83. Khorrami M, Karimipour V  
Exact determination of the phase structure of a multi-species asymmetric exclusion process,  
**Journal of Statistical Physics** 100 (5-6): 999-1030 SEP 2000.
84. Karimipour V  
Some general features of matrix product states in stochastic systems,  
**Journal of Physics A-Mathematical and General** 33 (4): 709-719 FEB 4 2000.
85. Alimohammadi M, Karimipour V, Khorrami M  
A two-parametric family of asymmetric exclusion processes and its exact solution,  
**Journal of Statistical Physics** 97 (1-2): 373-394 OCT 1999.
86. Karimipour V  
A remark on integrability of stochastic systems solvable by matrix product ansatz,  
**Europhysics Letters** 47 (4): 501-507 AUG 1999.
87. Karimipour V  
A multi-species asymmetric exclusion process, steady state and correlation functions on a periodic lattice,  
**Europhysics Letters** 47 (3): 304-310 AUG 1 1999.



88. Karimipour V, Khorrami M  
Anisotropic Heisenberg magnet with long-range interactions. Integrability and phase structure,  
**International Journal of Theoretical Physics** 38 (3): 971-984 MAR 1999.
89. Karimipour V  
Multispecies asymmetric simple exclusion process and its relation to traffic flow,  
**Physical Review E** 59 (1): 205-212 Part A JAN 1999.
90. Langari A, Karimipour V  
A modified quantum renormalization group for XXZ spin chain,  
**International Journal of Modern Physics B** 12 (23): 2359-2370 SEP 20 1998.
91. Alimohammadi M, Karimipour V, Khorrami M  
Exact solution of a one-parameter family of asymmetric exclusion processes,  
**Physical Review E** 57 (6): 6370-6376 JUN 1998.
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