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Born: November 9, 1961, Sirjan, Iran
Nationality: Iranian

Current position

Assoc. Professor of Physics, Alzahra University

Areas of specialization

Theoretical Physics

Appointments held

1995-2003

Institute for Advanced Studies in Basic Sciences, Zanjan

since 2003

Alzahra University, Tehran

Education

1984-1988

BSc in Physics, Sharif University of Technology, Tehran

1988-1990

BMSc in Physics, Sharif University of Technology, Tehran

1990-1995

PhD in Physics, Sharif University of Technology, Tehran

Publications

JOURNAL ARTICLES

- 2021
A. Shariati, N. Jafari
“Modified inertia as nonconservative Newtonian dynamics”
Phys. Rev. D **104**, 084070 (2021)
- 2016
A. Shariati, M. Khorrami, F. Loran
“Decoherence in Quantum Systems in a Static Gravitational Field”
Europhysics Letters, **115** (5), 1450081.
- 2014
A. Shariati, A. Aghamhoammadi, A.-H. Fatollahi, M. Khorrami;
“Some correlation functions in matrix product ground states of one-dimensional two-state chains”
Reports on Mathematical Physics, **73** (2), 201-211 (2014)
- A.-H. Fatollahi, A. Shariati, M. Khorrami;
“Closedness of orbits in a space with $SU(2)$ Poisson structure”
International Journal of Modern Physics A **29** (7) 1450081-18 (2014)
- 2013
A.-H. Fatollahi, A. Shariati, M. Khorrami,
“On the Relation between the Spin and the Magnetic Moment of the Proton”
Chinese Journal of Physics, **51** (3), 435-440 (2013)
- M. Khorrami, A.-H. Fatollahi, A. Shariati, “Gauge theory on a space with linear Lie type fuzziness” *Int. J. Mod. Phys. A* **28** (8), 1350021 (2013)
- 2012
M. Khorrami, A. Shariati, A. Aghamohammadi, A.-H. Fatollahi,
“Lack of anomalous diffusion in linear translationally-invariant systems determined by only one initial condition”,
Phys. Lett. A. **376**, 687-691 (2012)
- A. Shariati, M. Khorrami, A.-H. Fatollahi,
“Dirac Theory on a space with linear type fuzziness”,
Int. J. Mod. Phys. A **27**, 1250105 (2012)
- 2011
N. Jafari, A. Shariati,
“A Projective Interpretation of Some Doubly Special Relativity Theories”,
Phys. Rev. D **84**, 065038 (2011)
- 2010
A. Shariati, M. Khorrami, A.-H. Fatollahi,
“Statistical mechanics of free particles on space with Lie-type noncommutativity”,
J. Phys. A: Math. Theor. **43**, 285001 (2010)
- 2009
A.-H. Fatollahi, A. Shariati, M. Khorrami,
“Quantum Mechanics on space with $SU(2)$ fuzziness”,
Eur. Phys. J. C **61**, 489-494 (2009)
- M. Khorrami, A.-H. Fatollahi, A. Shariati,
“Poisson structure on a space with linear $SU(2)$ fuzziness”,

- 2008 *J. Math. Phys.* **50**, 072902 (2009)
- A. Shariati, M. Khorrami, A.-H. Fatollahi,
 “TeV-photon paradox and space with SU(2) fuzziness”,
Europhys. Lett. **81**, 40003 (2008)
- 2006 N. Jafari, A. Shariati,
 “Doubly Special Relativity: A New Relativity or Not?”,
AIP Conference Proceedings **841**, 462-465 (2006)
- 2004 N. Jafari, A. Shariati,
 “Operational indistinguishability of varying speed of light theories”,
Int. J. Mod. Phys. D **13**, 709-716 (2004)
- 2003 M. Khorrami, M. Alimohammadi, A. Shariati,
 “Spin 0 and spin 1/2 quantum relativistic particles in a constant gravitational field”,
Ann. Phy. (NY) **302**, 91-102 (2003)
- 2001 A. Shariati, A. Aghamohammadi, M. Khorrami,
 “Autonomous multispecies reaction-diffusion systems with more-than-two-site interactions”,
Phys. Rev. E **64**, 066102 (2001)
- M. Alimohammadi, A. Shariati,
 “Berry phase for spin-1/2 particles moving in a spacetime with torsion”,
Eur. Phys. J. C **21** 193-196 (2001)
- 2000 A. Aghamohammadi, A.-H. Fatollahi, M. Khorrami, A. Shariati,
 “Multispecies reaction-diffusion systems”,
Phys. Rev. E **62** 4642-4649 (2000)
- 1999 A. Shariati, M. Khorrami,
 “Equivalence principle and radiation by a uniformly accelerated charge”,
Found. Phys. Lett. **12**, 427-439 (1999)
- M. Alimohammadi, A. Shariati,
 “Neutrino Oscillation in a space-time with torsion”,
Mod. Phys. Lett. A **14**, 267-274 (1999)
- 1997 M. Khorrami, A. Shariati, A. Aghamohammadi,
 “SL_h(2)-symetric torsionless connections”,
Lett. Math. Phys. **40**, 95-99 (1997)
- 1996 A. Aghamohammadi, M. Khorrami, A. Shariati,
 “Toda theories as contractions of affine Toda theories”,
Phys. Lett. B **389**, 260-263 (1996)
- 1996 A. Shariati, A. Aghamohammadi, M. Khorrami,
 “The universal R-matrix for the Jordanian deformation of sl(2), and the contracted forms
 of so(4)”,
Mod. Phys. Lett. A **11**, 187-197 (1996)
- 1995 M. Khorrami, A. Shariati, A. Abolhassani, A. Aghamohammadi,
 “A triangular deformation of the two-dimensional Poincaré algebra”,

Mod. Phys. Lett. A **10**, 873-883 (1995)

A. Aghamohammadi, M. Khorrami, A. Shariati,
“Jordanian deformation of $SL(2)$ as a contraction of its Drinfeld-Jimbo deformation”,
J. Phys. A: Math. Gen. **28**, L225-L232 (1995)

A. Shariati, A. Aghamohammadi,
“A simple method for constructing the inhomogeneous quantum group $IGL_q(n)$ and its
universal enveloping algebra $U_q(igl(n))$ ”,
J. Math. Phys. **36**, 7103-7108 (1995)

1994

A. Aghamohammadi, S. Rouhani, A. Shariati,
“Inhomogeneous quantum groups related to two dimensional quantum planes”,
J. Phys. A: Math. Gen. **27**, 7103-7113 (1994)

ARXIV ARTICLES

2014

A. Shariati, N. Jafari,
“Is there a map between Galilean relativity and special relativity?”
[arXiv:1401.6948](https://arxiv.org/abs/1401.6948)

2007

A. Shariati, N. Jafari,
“MOND, dark matter, and conservation of energy”
[arXiv:0710.1411](https://arxiv.org/abs/0710.1411)

2005

A. Shariati, N. Jafari,
“A tight constraint on some varying-speed-of-light theories” [arXiv:gr-qc/0502071](https://arxiv.org/abs/gr-qc/0502071)

1996

A. Shariati,
“A note on the three dimensional sine-Gordon equation”
[arXiv:hep-th/9612048](https://arxiv.org/abs/hep-th/9612048)

PERSIAN ARTICLES

2009

“Two conducting identical spheres in contact, in a uniform electric field”
Gamma, no. 22, pp. 36-53 (Spring 2009).

“The Dark Mass Of The Coma Cluster”,
Gamma, no. 21, pp. 35-38 (Winter 2009)

2008

“Penning Trap”,
Gamma, no. 20, pp. 22-36 (Fall 2008)

“Thomson’s Index And Evaluation Of Research Activities”
Gamma, no. 17, pp. 34-46 (Winter 2007).

2007

“The Rindler Spacetime II–The Geodesics”,
Gamma, no. 15, pp. 58-64 (Summer 2007).

“Tides And The Roche Limit”,
Gamma, no. 15, pp. 28-42 (Summer 2007)

A. Shariati, N. Jafari,
“Dark Matter, or MOND”,
Gamma, no. 14, pp. 71-80 (Spring 2007).

2006

“The Foucault Pendulum”,
Gamma, no. 13, pp. 18-47 (Winter 2006).

“Second, Day, Month, Year”,
Gamma, no. 10, pp. 59-79 (Spring 2006).

“Davis’ Experiment”,
Gamma, no. 11, pp. 22-32 (Summer 2006).

2005

“Surface Temperature of the Planets”,
Gamma, no. 7, pp. 44-51 (Summer 2005).

“Some Forces Due To Solar Radiation”,
Gamma, no. 5, pp. 43-49 (Winter 2005).

2004

“Deducing Faraday’s Law From Electrostatics, Magnetostatics, And Galilean Invariance”,
Gamma, no. 4, pp. 62-64 (Fall 2004).

“Viewpoint [Comments about Dr Mansouri’s Talk at the opening of the Annual Physics Conference 2004]”,
Gamma, no. 4, pp. 1-3 (Fall 2004).

M. Khorrami, F. Roshani, A. Shariati, A.-H. Fatollahi,
“Sundial”,
Gamma, no. 3, pp. 58-80 (Summer 2004).

Rindler Spacetime,
Gamma, no. 3, pp. 48-57 (Summer 2004).

Observer in Special and General Relativity,
Gamma, no. 2, pp. 63-75 (Spring 2004)

Dark Matter and Dark Energy,
Gamma, no. 1, pp. 56-60 (Winter 2004)

Neutrino Flavour Oscillations,
Gamma, no. 1, pp. 46-52 (Winter 2004)

Translations

BOOKS

2004

“Was Einstein Right?”, by C. M. Will (Basic Books, 1986, ISBN 0-465-09086-9). Published by Sazman e chap va entesharat, Tehran, 2004, ISBN 964-422-482-5.

2000

“QED: The strange theory of light and matter” by R. P. Feynman (Princeton University Press, 1985, ISBN 0-691-02417-0). Published by Havay-e-Tazeh Publishing Co., Tehran, 2000, ISBN 964-7222-06-8

ARTICLES

2004

Albert Einstein’s 1905 articles (5 articles). Translated from the English translation. Published by the Alzahra University Press, 2004, ISBN 964-6366-59-7.

2004

Werner Heisenbergs 1925 article, entitled “Quantum-Theoretical Re-Interpretation of Kinematic and Mechanical Relations”. Translated from the English translation. The translation is published in *Gamma*, no. 2, pp. 25-40 (2004)

NEWSPAPER ARTICLES

1999

“Iran 1427”, *Iran* (Daily), no. 1314, p. 10 (25 Aug 1999).

Teaching

2004-2021

BSc Courses: Basic Physics, Analytic Mechanics, Special Relativity, Quantum Mechancis, Particle Physics, Astrophysics, Atmospheric Physics, Waves, Statistical Mechanics, Astrophysics, Atmospheric Physics, Particle Physics, Ordinary Differential Equations, Cosmology.

1995-2021

MSc Courses: Classical Mechanics, Advanced Quantum Mechanics, Classical Electrodynamics, Gravitation,

2006-2021

PhD Courses: General Relativity, Cosmology, Geometry and Topology.

1991-2012

Mechanics, Electricity and Magnetism, and Special Relativity, to the group of high-school students chosen as the Iranian physics olympiad team.

Graduata Students

2005

N. Jafari, PhD, thesis title: “Varying Speed of Light Theories”. Institute for Advanced Studies in Basic Sciences.

2012

A. Mlaknejad, PhD, thesis title: “Gauge Inflation”. Alzahra University.

Remark. Dr. M.-M. Sheikhjabbari, of IPM was the principal supervisor in this thesis.

Service to the profession

2003-2005

Member of the Executive Committee and Treasurer of the Physics Society of Iran.

Other academic activities

1999-2003

Editorial board of Iranian Journal of Physics (ISSN 0254-9611).

2004-2016

Editorial board and executive editor of Gamma (ISSN 1735-1286).

1991-2009

Member of the Physics Committee of the Young Scholar's Club (organizer of the national physics olympiad of Iran).