



Ehsan Bavarsad

Assistant Professor

College: faculty of Physics

Department: Elementary Particles and Field Theory
Physics

Education

Degree	Graduated in	Major	University
BSc	2003	Physics	University of Arak
MSc	2005	Physics	Isfahan University of Technology
Ph.D	2012	Physics	Isfahan University of Technology

Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
Department of Physics	Assistant Professor of Physics	Tenured	Full Time	

Work Experience

Head of the Elementary Particle Physics and Field Theory, Department of Physics, University of Kashan, Kashan, Iran, from 23/10/2017 to 05/01/2020.

Head of the Elementary Particle Physics and Field Theory, Department of Physics, University of Kashan, Kashan, Iran, from 24/01/2022 to 27/05/2024.

Papers in Conferences

1. [Effect of Schwinger pair production on the evolution of the Hubble constant in de Sitter spacetime ,Fifteenth Marcel Grossmann Meeting- MG15 ,pp. 2041-2046 ,Rome-Italy ,2018 07 01~07.](#)
2. [Marzyeh Akbari Ahmad mahmoudi ,& Ehsan Bavarsad ,Trace anomaly of scalar field in 2 dimensional de Sitter quantum electrodynamics ,Iranian Conference on Mathematical Physics ,pp. 137-140 ,Qom-Iran ,2020 01 02.](#)
3. [Ehsan Bavarsad ,& Manizheh Botshekananfard ,Renormalization of the energy-momentum tensor in 2D de Sitter QED ,9th conference on particle physics and fields ,pp. 51-54 ,Yazd-Iran ,2019 02 13~14.](#)

4. Ehsan Bavarsad ,& Leila Jafari Robattorki ,Nonminimal coupling of Schwinger scalars to gravity in 2D de Sitter spacetime ,National Conference on Gravity and Cosmology 96 ,pp. 66-69 ,Isfahan-Iran ,2018 01 24~25.
5. Ehsan Bavarsad ,& Manizheh Botshekananfard ,Adiabatic subtraction regularization of massless fermionic current in 3D de Sitter spacetime ,Iranian Conference on Mathematical Physics (ICMP) 2017 ,pp. 59-62 ,Qom-Iran ,2017 12 28.
6. Ehsan Bavarsad ,& Zahra Sajadi Nia ,Trace of energy-momentum tensor of scalar field in an electric field in 2D de Sitter spacetime ,Iranian Conference on Mathematical Physics (ICMP) 2017 ,pp. 67-70 ,Qom-Iran ,2017 12 28.
7. Ehsan Bavarsad , Sang Pyo Kim , Clément Stahl , SheSheng Xue ,Schwinger mechanism in electromagnetic field in de Sitter spacetime ,Joint International Conference of ICGAC-XIII and IK-15 on Gravitation, Astrophysics and Cosmology ,pp. 1-5 ,Seoul-Korea ,2017 07 03~07.
8. Ehsan Bavarsad ,& Narbeh Margosian ,Semiclassical energy-momentum tensor of the Schwinger scalars in de Sitter spacetime ,24th IPM Physics Spring Conference ,pp. 277-281 ,Tehran-Iran ,2017 05 24~25.
9. Ehsan Bavarsad ,& Mahjube Mortezaazadeh ,A study of trace of the energy-momentum tensor of the Schwinger scalars in 3D de Sitter spacetime ,24th IPM Physics Spring Conference ,pp. 282-286 ,Tehran-Iran ,2017 05 24~25.
10. Ehsan Bavarsad , Tayebe Saeidi Dehaghani , Zahra Mehri Shervedani ,Schwinger effect and semiclassical fermionic current in 3D de Sitter spacetime ,23th IPM Physics Spring Conference ,pp. 83 ,Tehran-Iran ,2016 05 18~19.
11. Ehsan Bavarsad ,& Tayebe Saeidi Dehaghani ,A study of fermionic current in 3D de Sitter spacetime ,23th IPM Physics Spring Conference ,pp. 45 ,Tehran-Iran ,2016 05 18~19.
12. Ehsan Bavarsad , Clément Stahl , SheSheng Xue ,Schwinger effect and semiclassical scalar current in de Sitter spacetime ,23th IPM Physics Spring Conference ,pp. 15 ,Tehran-Iran ,2016 05 18~19.
13. Ehsan Bavarsad ,Current of created scalar particles by Schwinger mechanism in 3D de Sitter spacetime ,6th conference on particle physics and fields ,pp. 16-19 ,Isfahan-Iran ,2016 01 20~21.

Papers in Journals

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1. Omid Gholizadeh Meimanat ,& Ehsan Bavarsad,Induced energy-momentum tensor in de Sitter scalar QED and its implication for induced currents,PHYSICAL REVIEW D,Vol. 107,No. 12,pp. 125001,2023 06 01,ISI, Scopus.
 2. Marzieh Akbari Ahmadmahmoudi ,& Ehsan Bavarsad,Energy-momentum tensor and effective Lagrangian of scalar QED with a nonminimal coupling in 2D de Sitter spacetime,PHYSICAL REVIEW D,Vol. 103,No. 10,pp. 105009,2021 05 17,ISI, Scopus.
 3. Manizheh Botshekananfard ,& Ehsan Bavarsad,Induced energy-momentum tensor of a Dirac field in 2D de Sitter QED,PHYSICAL REVIEW D,Vol. 101,No. 8,pp. 085011,2020 04 15,ISI, Scopus.
 4. Ehsan Bavarsad ,& Narbeh Margosian,Gravitational backreaction effect of Schwinger pair production in a strong electric field in de Sitter spacetime,Journal of Research on Many-body Systems,Vol. 9,No. 1,pp. 1-10,2018 09 22,ISC.
 5. Ehsan Bavarsad ,Mahjube Mortezaazadeh,Trace of energy-momentum tensor and gravitational backreaction of Schwinger scalars in 3D de Sitter spacetime,Iranian Journal of Physics Research,Vol. 18,No. 1,pp. 91-103,2018 06 21,ISC, Scopus.
 6. Ehsan Bavarsad , Sang Pyo Kim , Clément Stahl , SheSheng Xue,Effect of a magnetic field on Schwinger mechanism in de Sitter spacetime,Physical Review D,Vol. 97,No. 2,pp. 025017,2018 1 25,ISI.
 7. Ehsan Bavarsad , Clément Stahl , SheSheng Xue,Scalar current of created pairs by Schwinger mechanism in de Sitter spacetime,Physical Review D,Vol. 94,No. 10,pp. 104011,2016 11 4,ISI.