

# Complete list of publications

## Bijan Saha

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### Journal Publications

- [1] Bijan Saha:  
*Spinor field in Bianchi type-IX space-time*  
Canadian Journal of Physics **96** 1074 - 1084 (2018)  
DOI [10.1139/cjp-2017-0711](https://doi.org/10.1139/cjp-2017-0711) [Impact Factor: 0.964]  
ArXiv: [1705.07773](https://arxiv.org/abs/1705.07773) [gr-qc] (2017)
- [2] Bijan Saha:  
*Spinor field nonlinearity and space-time geometry*  
*Нелинейность спинорного поля и геометрия пространства-времени*  
Physics of Particles and Nuclei **49**(2), 146 - 212 (2018)  
DOI: [10.1134/S1063779618020065](https://doi.org/10.1134/S1063779618020065) [Impact Factor: 0.619]
- [3] Bijan Saha:  
*Nonlinear spinor field in non-diagonal Bianchi type space-time*  
EPJ Web of Conferences **173** 02018 (4 pages) (2018)  
DOI [10.1051/epjconf/201817302018](https://doi.org/10.1051/epjconf/201817302018)
- [4] Bijan Saha:  
*Bianchi type-VIII spinor solutions*  
The European Physical Journal Plus **132** 547 (12 pages) (2017)  
DOI [10.1140/epjp/i2017-11830-0](https://doi.org/10.1140/epjp/i2017-11830-0) [Impact Factor: 1.377]
- [5] Bijan Saha and Victor S Rikhvitsky:  
*Nonlinear Spinor Fields in LRS Bianchi type-I space-time: Theory and observation*  
Gravitation & Cosmology **23** 329 - 336 (2017)  
DOI [10.1134/S0202289317040193](https://doi.org/10.1134/S0202289317040193) [Impact Factor: 0.716]  
ArXiv: [1508.04677](https://arxiv.org/abs/1508.04677) [gr-qc] (2015)
- [6] Bijan Saha:  
*Nonlinear Spinor field in isotropic space-time and dark energy models*  
The European Physical Journal Plus **131** 242 - 17 (2016)  
DOI [10.1140/epjp/i2016-16242-0](https://doi.org/10.1140/epjp/i2016-16242-0) [Impact Factor: 1.377]  
ArXiv: [1606:00214](https://arxiv.org/abs/1606.00214) [gr-qc] (2016)
- [7] Bijan Saha:  
*Nonlinear Spinor Fields in Bianchi type-VI space-time*

- The European Physical Journal Plus **131** 170 - 18 (2016)  
 DOI [10.1140/epjp/i2016-16170-y](https://doi.org/10.1140/epjp/i2016-16170-y) [Impact Factor: 1.377]  
 ArXiv: [1507.03847v1](https://arxiv.org/abs/1507.03847v1) [gr-qc] (2015)
- [8] Bijan Saha:  
*Nonlinear Spinor Fields in Bianchi type-III space-time*  
 International Journal of Theoretical Physics **55** 2259 - 2274 (2016)  
 DOI [10.1007/s10773-015-2864-z](https://doi.org/10.1007/s10773-015-2864-z) [Impact Factor: 1.184]  
 ArXiv: [1603.04623](https://arxiv.org/abs/1603.04623) [gr-qc] (2016)
- [9] Bijan Saha:  
*Spinor Field with Polynomial Nonlinearity in LRS Bianchi type-I space-time*  
 Canadian Journal of Physics **96** 116 - 121 (2016)  
 DOI [10.1139/cjp-2015-0574](https://doi.org/10.1139/cjp-2015-0574) [Impact Factor: 0.964]  
 ArXiv: [1507.06236](https://arxiv.org/abs/1507.06236) [gr-qc] (2015)
- [10] Bijan Saha:  
*Nonlinear Spinor Fields in Bianchi type-V space-time*  
 Chinese Journal of Physics **53** 110114-14 (2015)  
 DOI [10.6122/CJP.20150713](https://doi.org/10.6122/CJP.20150713) [Impact Factor: 0.413]  
 ArXiv: [1602.05767](https://arxiv.org/abs/1602.05767) [gr-qc] (2016)
- [11] Bijan Saha:  
*Nonlinear Spinor Fields in Bianchi type-VI<sub>0</sub> space-time*  
 The European Physical Journal Plus **130** 208 - 13 (2015)  
 DOI [10.1140/epjp/i2015-15208-0](https://doi.org/10.1140/epjp/i2015-15208-0) [Impact Factor: 1.377]  
 ArXiv: [1504.03883v1](https://arxiv.org/abs/1504.03883v1) [gr-qc] (2015)
- [12] Bijan Saha:  
*Interacting Scalar and Electromagnetic Fields in  $f(R, T)$  Theory of Gravity*  
 International Journal of Theoretical Physics **54** 3776 - 3787 (2015)  
 DOI [10.1007/s10773-015-2615-1](https://doi.org/10.1007/s10773-015-2615-1) [Impact Factor: 1.184]  
 ArXiv: [1410.1738v1](https://arxiv.org/abs/1410.1738v1) [gr-qc]
- [13] Farook Rahman, Anirudh Pradhan, Nasr Ahmed, Saibal Ray, Bijan Saha and Moshir Rahman:  
*Fluid Sphere: Stability Problem and Dimensional Constraint*  
 International Journal of Modern Physics D **24**(6) 1550049 (14 pages) (2015)  
 DOI: [10.1142/S0218271815500492](https://doi.org/10.1142/S0218271815500492) [Impact Factor: 1.741]  
[1401.1402v2](https://arxiv.org/abs/1401.1402v2) [gr-qc]
- [14] Anirudh Pradhan and Bijan Saha:  
*Accelerating Dark Energy Models of the Universe in Anisotropic Bianchi Type Space-Times and Recent Observations*

- Physics of Particles and Nuclei **46**(3) 310 - 346 (2015)  
DOI: [10.1134/S1063779615030028](https://doi.org/10.1134/S1063779615030028) [Impact Factor: 0.619]
- [15] Bijan Saha:  
*Nonlinear Spinor Fields in Bianchi type-I space-time: Problems and Possibilities*  
Astrophysics and Space Science **357**, 28 (2015)  
DOI: [10.1007/s10509-015-2291-x](https://doi.org/10.1007/s10509-015-2291-x) [Impact Factor: 2.263]  
ArXiv: [1409.4993v1](https://arxiv.org/abs/1409.4993v1) [gr-qc]
- [16] Anirudh Pradhan, Bijan Saha and Victor Rikhvitsky:  
*Bianchi type-I transit cosmological models with time dependent gravitational and cosmological constants: reexamined*  
Indian Journal of Physics **89** 503 - 513 (2015)  
DOI: [10.1007/s12648-014-0612-5](https://doi.org/10.1007/s12648-014-0612-5) [Impact Factor: 1.377]  
ArXiv: [1308.4842v1](https://arxiv.org/abs/1308.4842v1) [physics.gen-ph]
- [17] Bijan Saha, Victor Rikhvitsky and Anirudh Pradhan:  
*Bianchi type I cosmological models with time dependent gravitational and cosmological constants: an alternative approach*  
Romanian Journal of Physics **60** 3 - 14 (2015) [Impact Factor: 0.924]
- [18] Anirudh Pradhan, Nasr Ahmed and Bijan Saha:  
*Reconstruction of modified  $f(R, T)$  with  $\Lambda(T)$  gravity in general class of Bianchi cosmological models*  
Canadian Journal of Physics **93**(6) 654 - 662 (2015)  
DOI: [10.1139/cjp-2014-0536](https://doi.org/10.1139/cjp-2014-0536) [Impact Factor: 0.964]
- [19] Mohd. Zeyauddin and Bijan Saha:  
*Bianchi type V bulk viscous cosmological models with particle creation in General Relativity*  
The European Physical Journal Plus **129** 177 (23 Pages) (2014)  
DOI: [10.1140/epjp/i2014-14177-0](https://doi.org/10.1140/epjp/i2014-14177-0) [Impact Factor: 1.377]  
ArXiv: [1306.2168](https://arxiv.org/abs/1306.2168) [gr-qc]
- [20] Victor Rikhvitsky, Bijan Saha and Mihai Visinescu:  
*Magnetic Bianchi type II string cosmological model in loop quantum cosmology*  
Astrophysics and Space Science **352** 255 - 261 (2014)  
DOI: [10.1007/s10509-014-1890-2](https://doi.org/10.1007/s10509-014-1890-2) [Impact Factor: 2.263]  
ArXiv: [1312.2385v1](https://arxiv.org/abs/1312.2385v1) [gr-qc]
- [21] Bijan Saha:  
*Isotropic and anisotropic dark energy models*  
Physics of Particles and Nuclei **45** issue 2, 349 - 396 (2014)  
DOI: [10.1134/S1063779614020026](https://doi.org/10.1134/S1063779614020026) [Impact Factor: 0.619]

- [22] Bijan Saha:  
*Nonlinear Spinor Fields in Bianchi type-I space-time reexamined*  
 International Journal of Theoretical Physics **53** 1109 - 1129 (2014)  
 DOI: [10.1007/s10773-013-1906-7](https://doi.org/10.1007/s10773-013-1906-7) [Impact Factor: 1.184]  
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- [23] Bijan Saha:  
*Bianchi type-VI anisotropic dark energy model with varying EoS parameter*  
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 DOI: [10.1007/s10773-013-1670-8](https://doi.org/10.1007/s10773-013-1670-8) [Impact Factor: 1.184]  
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- [24] Bijan Saha:  
*Bianchi type-V dark energy model with varying EoS parameter*  
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 DOI: [10.1007/s10773-012-1447-5](https://doi.org/10.1007/s10773-012-1447-5) [Impact Factor: 1.184]  
 ArXiv: [1209.6339](https://arxiv.org/abs/1209.6339) [gr-qc]
- [25] Mohd. Zeyauddin and Bijan Saha:  
*Bianchi type-VI cosmological model: A scale-covariant study*  
 Astrophysics and Space Science **343** 445-450 (2013)  
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 ArXiv: [1205.5655](https://arxiv.org/abs/1205.5655) [gr-qc]
- [26] Bijan Saha:  
*Some remarks on Bianchi type-II, VIII and IX models*  
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- [27] Bijan Saha, H. Amirhashchi, and Anirudh Pradhan:  
*Two-Fluid Scenario for Dark Energy Models in an FRW Universe-Revisited*  
 Astrophysics and Space Science **342** 257 - 267 (2012)  
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- [28] Bijan Saha and Anil Kumar Yadav:  
*Dark energy model with variable  $q$  and  $\omega$  in LRS Bianchi-II space-time*  
 Astrophysics and Space Science **341** 651 - 656 (2012)  
 DOI: [10.1007/s10509-012-1070-1](https://doi.org/10.1007/s10509-012-1070-1) [Impact Factor: 2.263]  
 ArXiv: [1110.4887v1](https://arxiv.org/abs/1110.4887v1) [physics.gen-physics]
- [29] Victor Rikhvitsky, Bijan Saha and Mihai Visinescu:  
*Bianchi type-I string cosmological model in the presence of a magnetic field: classical versus loop quantum cosmology approaches*

- Astrophysics and Space Science **339** 371-377 (2012)  
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- [30] Anil Kumar Yadav and Bijan Saha:  
*LRS Bianchi-I Anisotropic Cosmological Model with Dominance of Dark Energy*  
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- [31] Bijan Saha:  
*Nonlinear Spinor Fields and its role in Cosmology*  
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- [32] Bijan Saha:  
*Nonlinear spinor field in Bianchi type-II space-time*  
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 DOI: [10.2174/1874415X01104010001](https://doi.org/10.2174/1874415X01104010001)
- [33] Anirudh Pradhan, H. Amirhashchi, and Bijan Saha:  
*An interacting and non-interacting two-fluid scenario for dark energy in FRW universe with constant deceleration parameter*  
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- [34] Anirudh Pradhan, H. Amirhashchi, and Bijan Saha:  
*An interacting two-fluid scenario for dark energy in FRW Universe*  
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- [35] Bijan Saha:  
*Bianchi type-II cosmological model: some remarks*  
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- [36] Anirudh Pradhan, H. Amirhashchi, and Bijan Saha:  
*Bianchi type-I anisotropic dark energy model with constant deceleration parameter*  
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- [37] H. Amirhashchi, Anirudh Pradhan, and Bijan Saha:  
*Variable equation of state for Bianchi type-VI<sub>0</sub> dark energy models*

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- [38] Yu.P. Rybakov, G.N. Shikin, Yu.A. Popov and Bijan Saha:  
*Scalar field in cosmology: Potential for isotropization and inflation*  
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- [39] Yu.P. Rybakov, G.N. Shikin, Yu.A. Popov and Bijan Saha:  
*Electromagnetic field with induced massive term: Case with scalar field*  
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- [40] Bijan Saha:  
*Spinor model of a perfect fluid and their applications in Bianchi type-I and FRW models*  
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*Bianchi type-VI model with cosmic strings in the presence of a magnetic field*  
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- [42] Bijan Saha:  
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- [43] Mihai Visinescu and Bijan Saha:  
*Cosmological string model in the presence of a magnetic field: Spinor approach and quantum loop effects*  
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- [44] Bijan Saha and Mihai Visinescu:  
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- [46] Bijan Saha:  
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- [47] Bijan Saha, Victor Rikhvitsky and Mihai Visinescu:  
*Bianchi type-I string cosmological model in the presence of a magnetic flux: exact and qualitative solutions*  
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- [48] Bijan Saha:  
*Interacting spinor and scalar fields in Bianchi type-I Universe filled with viscous fluid: exact and numerical solutions*  
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[arXiv: gr-qc/0703124](#)
- [49] Bijan Saha:  
*Early inflation, isotropization and late-time acceleration of a Bianchi type-I universe*  
*Ранняя инфляция, изотропизация и позднее ускорение Вселенной типа Бианки-I*  
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- [50] Bijan Saha and Victor Rikhvitsky:  
*Nonlinear spinor fields in anisotropic Universe filled with viscous fluid: Exact solutions and qualitative analysis*  
*Нелинейные спинорные поля в анизотропной Вселенной, заполненной вязкой жидкостью: точные решения и качественный анализ*  
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- [52] Bijan Saha and Mihai Visinescu:  
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*Spinor fields in Bianchi type-I Universe*  
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- [62] Bijan Saha and V. Rikhvitsky:  
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*Bel-Robinson tensor for the Bianchi type I universe*  
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