

Department of Physics

List of recent publications

Sl. No	Title of Paper	Name of Journal/Publisher in case of Book	Year of Publication and Impact factor if any	Volume number and Pages
1.	Primordial blackhole formation: exploring chaotic potential with a sharp step via the GLMS perspective Rinsy Thomas, Jobil Thomas and Minu Joy https://doi.org/10.1088/1361-6382/ad74d4	Class. Quantum Grav.	IF: 3.7 2024	41 (2024) 205001
2.	Gravitational wave production after inflation for a hybrid inflationary model Rinsy Thomas, J. Thomas, S. P. Surendran and Minu Joy https://www.worldscientific.com/doi/10.1142/S021827182350075X	International Journal of Modern Physics D	IF: 2.547 2023	32, No.11 (2023) 2350075
3.	Primordial gravitational waves by chaotic potential with a sharp step Rinsy Thomas, Jobil Thomas and Minu Joy https://doi.org/10.1016/j.dark.2023.101313	Physics of the Dark Universe	IF: 5.12 2023	42 (2023) 101313
4.	Running of spectral index for a hybrid inflationary model Rinsy Thomas and Minu Joy https://doi.org/10.12723/mjs.65.2	Mapana Journal of Sciences	IF: 1.5 2023	Vol. 22, No. 2, (2023)
5.	Ring non-Gaussianity from inflation with a step in the second derivative of the potential R. Rakhi and Minu Joy https://doi.org/10.1007/s12043-022-02304-3	Pramana Journal of Physics	IF: 2.669 2022	96, 56 (2022)
6.	Constraints on tensor to scalar ratio using WKB approximation, A. Aiswarya and Minu Joy https://doi.org/10.1088/1475-7516/2019/02/025	Journal of Cosmology and Astroparticle Physics	IF: 5.21 2019	06, 0918 (2019)

7.	Synthesis, growth, crystal structure, thermal, linear and nonlinear optical analysis of new extended -conjugated organic material based on methyl pyridinium compound of 4-(4-(4-(dimethylamino) phenyl)buta- 1,3-dienyl)-1-methylpyridinium p-styrenesulfonate hydrate Priya Antony https://doi.org/10.1016/j.molstruc.2019.07.024	Journal of Molecular Structure	IF: 4.7 2019	1196,699-706
8.	Crystal growth and characterization of 4-[4-(4- dimethylamino-phenyl) buta-1,3-dienyl]-1-methyl pyridinium iodide for higher order non-linear applications Priya Antony https://doi.org/10.1016/j.optlastec.2019.105831	Optics & Laser Technology	IF: 5.0 2020	121, 105831
9	Structural, thermal, linear and nonlinear optical and cytotoxicity studies of a novel organic stilbazolium salt: 4-[2-(4-hydroxyphenyl) ethenyl]-1-methylpyridinium 4-styrenesulfonate Priya Antony https://doi.org/10.1016/j.molstruc.2022.133196	Journal of Molecular Structure	2022 IF: 4.7	133196