



Email: [REDACTED]

IPM Positions

Faculty Member , School of Physics
(2018 - Present)

Research Interests

Early Universe Cosmology, Inflation, Cosmological perturbation theory,
Stringy Cosmology

Related Papers

1. I. Mehin Rasulian and A. Ashoorioon
Static black hole horizons in cosmology
(Preprint) [\[abstract\]](#)
arXiv.org link: 2504.20701 [abs, src, ps, others], cited by
Code: IPM/P-2025/09
2. A. Ashoorioon, SH. Mukohyama, K. Rezazadeh and N. Talebizadeh
Cosmological Perturbation Theory with Trinity of Scalar Fields
Journal of Cosmology and Astroparticle Physics (2025), [\[abstract\]](#)
Code: IPM/A-2025/03
3. A. Ashoorioon, M.B. Jahani Poshteh and A. Yousefi-Sostani
Extended Effective Field Theory of Dark Energy: Ghost Condensate Dark
Energy with Sextic Dispersion Relation in de Sitter Spacetime
(Preprint) [\[abstract\]](#)
arXiv.org link: 2502.02401 [abs, src, ps, others], cited by
Code: IPM/P-2024/55
4. A. Ashoorioon, Sh. Mukohyama, K. Rezazadeh and N. Talebizadeh
Cosmological Perturbation Theory with Trinity of Scalar Fields

(Preprint) [\[abstract\]](#)
Code: IPM/P-2024/51

5. K. Rezazadeh, A. Ashoorioon and D. Grin
Cascading dark energy
Astrophysical Journal **975** (2024), [\[abstract\]](#)
Code: IPM/A-2024/70
6. Z. Davari, A. Ashoorioon and K. Rezazadeh
Spherical collapse approach for non-standard dark matter models and enhanced early galaxy formation in JWST
Monthly Notices of the Royal Astronomical Society **534** (2024), 2848-2857 [\[abstract\]](#)
Code: IPM/A-2024/69
7. A. Ashoorioon, M.B. Jahani Poshteh and O. Luongo
Particle motion and accretion disk around rotating accelerating black holes
(Preprint) [\[abstract\]](#)
Code: IPM/P-2024/25
8. Z. Davari, A. Ashoorioon and K. Rezazadeh
Spherical Collapse Approach for Non-standard Cold Dark Matter Models and Enhanced Early Galaxy Formation in JWST
Mon. Not. R. Astron. Soc. **534** (2024), 2848-2857 [\[abstract\]](#)
arXiv.org link: 2311.15083 [abs, src, ps, others], cited by
Code: IPM/P-2023/64
9. A. Ashoorioon, M.B. Jahani Poshteh and R. B. Mann
Measuring black hole spin through gravitational lensing of pulsars
(Preprint) [\[abstract\]](#)
arXiv.org link: 2309.00205 [abs, src, ps, others], cited by
Code: IPM/P-2023/60
10. K. Rezazadeh, A. Ashoorioon and D. Grin
Cascading Dark Energy
Astrophysical Journal **975** (2024), 137 [\[abstract\]](#)
arXiv.org link: 2208.07631 [abs, src, ps, others], cited by
Code: IPM/P-2022/60
11. A. Ashoorioon and A. Yousefi-Sostani
Exorcising the Ghost Condensate Dark Energy with a Sextic Dispersion Relation
Phys. Lett. B **844** (2023), 138115 [\[abstract\]](#)
Code: IPM/P-2023/42
12. A. Ashoorioon and Z. Davari
Dark Matter Cosmology with Varying Viscosity: a Possible Resolution to the S_8 Tension
Astrophys. J **959** (2023), 120 [\[abstract\]](#)

arXiv.org link: 2303.06627 [abs, src, ps, others], cited by
Code: IPM/P-2023/41

13. A. Ashoorioon and K. Rezazadeh
Ekpyrotic Inflation: Transient Acceleration after Non-minimal M-flaton Preheating
JCAP **07** (2023), 028 [\[abstract\]](#)
arXiv.org link: 2301.06598 [abs, src, ps, others], cited by
Code: IPM/P-2023/05
14. A. Ashoorioon, M.B. Jahani Poshteh and R. B. Mann
Lensing Signatures of a Slowly-Accelerated Black Hole
Phys. Rev. D **107** (2023), 044031 [\[abstract\]](#)
arXiv.org link: 2110.13132 [abs, src, ps, others], cited by
Code: IPM/P-2021/38
15. A. Ashoorioon, M.B. Jahani Poshteh and R. B. Mann
Distinguishing a Slowly Accelerating Black Hole by Differential Time Delays of Images
Phys. Rev. Lett. **129** (2022), 031102 [\[abstract\]](#)
arXiv.org link: 2210.10762 [abs, src, ps, others], cited by
Code: IPM/P-2022/61
16. A. Ashoorioon, K. Rezazadeh and A. Rostami
NANOGrav Signal from the End of Inflation and the LIGO Mass and Heavier Primordial Black Holes
Phys. Lett. B **835** (2022), 137542 [\[abstract\]](#)
arXiv.org link: 2202.01131 [abs, src, ps, others], cited by
Code: IPM/P-2022/06
17. A. Ashoorioon, Gh. Geshnizjani and H. J. Kim
Non-Gaussianities in the Extended EFT of Inflation
JCAP **01** (2021), 046 [\[abstract\]](#)
arXiv.org link: 2110.06038 [abs, src, ps, others], cited by
Code: IPM/P-2021/33
18. M. Ahmadvand, A. Ashoorioon and K. Bitaghsir Fadafan
Confronting the Magnetically-Induced Holographic Composite Inflation with Observation
Phys. Rev. D **104** (2021), 063509 [\[abstract\]](#)
arXiv.org link: 2103.08362 [abs, src, ps, others], cited by
Code: IPM/P-2021/007
19. A. Ashoorioon , A. Rostami and J. T. Firouzjaee
Examining the end of inflation with primordial black holes mass distribution and gravitational waves
Phys. Rev. D **103** (2021), 123512 [\[abstract\]](#)
arXiv.org link: 2012.02817 [abs, src, ps, others], cited by
Code: IPM/P-2020/059

20. A. Ashoorioon and M.B. Jahani Poshteh
Black hole pair production on cosmic strings in the presence of a background magnetic field
Phys. Lett. B **816** (2021), 136224 [\[abstract\]](#)
arXive.org link: 2006.16983 [abs, src, ps, others], cited by
Code: IPM/P-2020/026
21. A. Ashoorioon, J. Taghizadeh Firouzjaee and A. Rostami
EFT Compatible PBHs: Effective Spawning of the Seeds for Primordial Black Holes during Inflation
JHEP **07** (2021), 087 [\[abstract\]](#)
arXive.org link: 1912.13326 [abs, src, ps, others], cited by
Code: IPM/P-2019/019
22. A. Ashoorioon and K. Rezazadeh
Non-Minimal M-flation
JHEP **07** (2020), 244 [\[abstract\]](#)
arXive.org link: 1909.09806 [abs, src, ps, others], cited by
Code: IPM/P-2019/018 [Note](#): Published: 31 July 2020
23. A. Ashoorioon
Rescuing Single Field Inflation from the Swampland
Phys. Lett. B **790** (2019), 568-573 [\[abstract\]](#)
arXive.org link: 1810.04001 [abs, src, ps, others], cited by
Code: IPM/P-2018/072
24. A. Ashoorioon
Non-Unitary Evolution in the General Extended EFT of Inflation and Excited Initial States
JHEP **1812** (2018), 012 [\[abstract\]](#)
arXive.org link: 1807.06511 [abs, src, ps, others], cited by
Code: IPM/P-2018/029 [Note](#): Published: 03 December 2018

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