



Personal Information

Contact Info. Beijing Institute of Mathematical Sciences And Applications,
Yanqihu, Huairou District, Beijing 101408, P. R. China

Education

2003 **Ph.D.**, *Physics Department of Sharif University of Technology*, Tehran-Iran
First Class Honours

Ph.D. Thesis

Title *Gauge fields from string theory*
Supervisors Hessameddin Arfaei

Work Experience

2020-present **Research Fellow**, BIMSA, Beijing Institute of Mathematical Sciences And Applications, China

2014-2020 **Senior Research Associate**, ITP/CHINESE ACADEMY OF SCIENCES, Beijing, China

2010-2014 **Assistant Professor**, KYUNGHEE UNIVERSITY, Seoul, South-Korea

2008-2010 **Postdoctoral Researcher**, KIAS, Seoul, South-Korea

2006-2008 **Postdoctoral Researcher**, SEOUL NATIONAL UNIVERSITY, Seoul, South-Korea

Publications and Preprints

1. R. Jafari, Alireza Akbari, Shukhrat Mardonov, H. Yavartanoo "Dynamical Quantum Phase Transitions in a Pseudo-Hermitian Hamiltonian: The Imbalanced-Pairing Kitaev Model" e-Print: 2607.23956

*Beijing Institute of Mathematical Sciences And Applications,
Yanqihu, Huairou District, Beijing 101408, P. R. China*

2. Ida M. Rasulian, M.M. Sheikh-Jabbari, H. Yavartanoo "Null-strings Gauged, Reloaded and Quantized, I: Canonical Quantization in the Light-Cone Gauge" e-Print: 2607.02970
3. M.M. Sheikh-Jabbari, H. Yavartanoo "Null strings gauged and reloaded, II: Consistent classical treatment of the null strings" Phys.Lett.B 880 (2026) 140775
4. M.M. Sheikh-Jabbari, H. Yavartanoo "Null strings gauged and reloaded, I: Null strings have Carroll-Weyl gauge symmetry" Phys.Lett.B 880 (2026) 140824
5. M.M. Sheikh-Jabbari, H. Yavartanoo "An Inconsistency in the Null Strings Literature: The Tale of an Overlooked Symmetry" e-Print: 2605.12414
6. S. Dutta, I.M. Rasulian, M.M. Sheikh-Jabbari, H. Yavartanoo "Towards quantizing null p-branes: light-cone gauge analysis and physical Hilbert space" JHEP 05 (2025) 029
7. H. Adami, A. Parvizi, M.M. Sheikh-Jabbari, V. Taghiloo, H. Yavartanoo "Carrollian structure of the null boundary solution space" JHEP 02 (2024) 073
8. H. Adami, A. Parvizi, M.M. Sheikh-Jabbari, V. Taghiloo, H. Yavartanoo "Hydro & thermodynamics at causal boundaries, examples in 3d gravity" JHEP 07 (2023) 038
9. Vahid Taghiloo, H. Adami, M.M. Sheikh-Jabbari, H. Yavartanoo, C. Zwickel "Symmetries at Null Boundaries: 3-dimensional Einstein gravity" PoS Regio2021 (2022) 008 Contribution to: Regio2021, 008
10. Shahin Sheikh-Jabbari, Hamed Adami, Vahid Taghiloo, Hossein Yavartanoo "Null Surface Thermodynamics" PoS Regio2021 (2022) 034 Contribution to: Regio2021, 034
11. H. Adami, Pujian Mao, M.M. Sheikh-Jabbari, V. Taghiloo, H. Yavartanoo "Symmetries at causal boundaries in 2D and 3D gravity" JHEP 05 (2022) 189
12. H. Adami, M.M. Sheikh-Jabbari, V. Taghiloo, H. Yavartanoo "Null surface thermodynamics" Phys.Rev.D 105 (2022) 6, 066004
13. H. Adami, D. Grumiller, M.M. Sheikh-Jabbari, V. Taghiloo, H. Yavartanoo, C. Zwickel "Null boundary phase space: slicings, news & memory" JHEP 11 (2021) 155
14. H. Adami, M.M. Sheikh-Jabbari, V. Taghiloo, H. Yavartanoo, C. Zwickel, "Chiral Massive News: Null Boundary Symmetries in Topologically Massive Gravity" , JHEP 05 (2021) 261
15. H. Adami, M.M. Sheikh-Jabbari, V. Taghiloo, H. Yavartanoo, C. Zwickel, "Symmetries at null boundaries: two and three dimensional gravity cases" , JHEP 10 (2020) 107
16. A. Banerjee, E.O. Colgain, J.A. Rosabal, H. Yavartanoo , "Ehlers as EM duality in the double copy" , Phys.Rev.D 102 (2020) 126017
17. Eoin O. Colgain, Hossein Yavartanoo, "Testing the Swampland: H_0 tension" Phys.Lett. B797 (2019) 134907
18. Thiago Araujo, Eoin O Colgain, Yuho Sakatani, M.M. Sheikh-Jabbari, Hossein Yavartanoo, "Holographic integration of $T\bar{T}$ & $J\bar{T}$ via $O(d, d)$ " JHEP 1903 (2019) 168
19. Eoin O. Colgain, Maurice H.P.M. van Putten, Hossein Yavartanoo. " H_0 tension and the de Sitter Swampland" Phys.Lett. B793 (2019) 126-129
20. Thiago Araujo, Eoin O Colgain, Hossein Yavartanoo "Embedding the modified CYBE in Supergravity" Eur.Phys.J. C78 (2018) no.10, 854
21. I. Bakhmatov, E. O Colgain, M. M. Sheikh-Jabbari, H. Yavartanoo, "Yang-Baxter Deformations Beyond Coset Spaces (a slick way to do TsT)", JHEP 1806 (2018) 161.
22. K. Hajian, M.M. Sheikh-Jabbari, H. Yavartanoo, "Fluffing Extreme Kerr", Phys.Rev. D98 (2018) no.2, 026025.
23. T. Araujo, I. Bakhmatov, N. S. Deger, J. Gutowski, E. O Colgain, H. Yavartanoo, "Calibrated Entanglement Entropy", JHEP 1707 (2017) 117.
24. H. Afshar, D. Grumiller, M.M Sheikh-Jabbari and H. Yavartanoo, "Horizon fluff, semi-classical

- black hole microstates Log-corrections to BTZ entropy and black hole/particle correspondence" JHEP08 (2017) 087.
25. E. Ó. Colgáin and H. Yavartanoo, "Banados and SUSY: On Supersymmetry and Minimal Surfaces of Locally AdS₃ Geometries" Class.Quant.Grav. 34 (2017) no.9, 095008
 26. M. M. Sheikh-Jabbari and H. Yavartanoo, "Horizon Fluffs: Near Horizon Soft Hairs as Microstates of Generic AdS₃ Black Holes" Phys.Rev. D95 (2017) no.4, 044007
 27. M.M. Sheikh-Jabbari, H. Yavartanoo, "Excitation Entanglement Entropy in 2d Conformal Field Theories", Phys.Rev. D94 (2016) no.12, 126006
 28. M.M. Sheikh-Jabbari, H. Yavartanoo, "On 3d Bulk Geometry of Virasoro Coadjoint Orbits: Orbit invariant charges and Virasoro hair on locally AdS₃ geometries", Eur. Phys. J. C 76, no. 9, 493 (2016)
 29. S. Sadeghian, M.M. Sheikh-Jabbari, M.H. Vahidinia, H. Yavartanoo, "Three Theorems on Near Horizon Extremal Vanishing Horizon Geometries", Phys.Lett. B753 (2016) 488-492
 30. S. Sadeghian, H. Yavartanoo, "Black Rings in U(1)³ Supergravity and their dual 2d CFT", Class. Quant. Grav. 33, no. 9, 095006 (2016)
 31. S. Sadeghian, M.M. Sheikh-Jabbari, M.H. Vahidinia, H. Yavartanoo, "Near Horizon Structure of Extremal Vanishing Horizon Black Holes", Nucl.Phys. B900 (2015) 222-243
 32. S. Sadeghian, M.M. Sheikh-Jabbari, H. Yavartanoo, "On Classification of Geometries with SO(2,2) Symmetry", JHEP 10 (2014) 081
 33. Eoin Ó Colgáin, M.M. Sheikh-Jabbari, Justin F. Vázquez-Poritz, Hossein Yavartanoo, Zhibai Zhang, "Warped Ricci-flat reductions", Phys. Rev. D 90, 045013 (2014)
 34. M. M. Sheikh-Jabbari, Hossein Yavartanoo, "On Quantization of AdS₃ Gravity I: Semi-Classical Analysis" JHEP07(2014)104
 35. Mohsen Alishahiha and Hossein Yavartanoo, "Conformally Lifshitz solutions from Horava-Lifshitz Gravity" Class.Quant.Grav. 31 (2014) 095008.
 36. Maria Johnstone, M.M. Sheikh-Jabbari Joan Simon and H. Yavartanoo, "Extremal Black Holes, Their Dual CFT's and the First Law of Thermodynamics, Phys. Rev. D 88, 101503 (2013).
 37. Maria Johnstone, M.M. Sheikh-Jabbari Joan Simon and H. Yavartanoo, "Near- Extremal Vanishing Horizon AdS₅ Black Holes and Their CFT Duals", JHEP04(2013)045.
 38. Eoin Ó Colgáin, M. Alishahiha and H. Yavartanoo, "Charged Black Branes with Hyperscaling Violating Factor", JHEP 1211 (2012) 137
 39. M. Alishahiha and H. Yavartanoo, "On Holography with Hyperscaling Violation" JHEP 1211 (2012) 034.
 40. H. Yavartanoo, "On EVH black hole solution in Heterotic string theory", Nucl.Phys. B863 (2012) 410-420.
 41. H. Yavartanoo "Five dimensional heterotic black holes and its dual IR-CFT", Eur. Phys. J. C (2012) 72:2197
 42. H. Yavartanoo "On Heterotic Black Holes and EVH/CFT Correspondence", Eur. Phys. J. C (2012) 72:2256
 43. Hossein Yavartanoo, "EVH black hole solutions with higher derivative corrections", Eur.Phys.J. C72 (2012) 1911.
 44. Ilya Bakhmatov, Eoin Ó Colgáin, Hossein Yavartanoo, "Fermionic T-duality in the pp-wave limit", JHEP 1110:085, 2011
 45. Shahin Sheikh-Jabbari and Hossein Yavartanoo, "AdS₃ throat for EVH black holes", JHEP 1110:085, 2011
 46. Eoin Ó Colgáin, Jun-Bao Wu, Hossein Yavartanoo "On the generality of the LLM geometries in

- M-theory", JHEP 1104:002,2011
47. Eoin Ó Colgáin, Jun-Bao Wu, Hossein Yavartanoo "Supersymmetric AdS₃ X S² M-theory geometries with fluxes", JHEP 1008:114,2010
 48. Eoin Ó Colgáin, Jun-Bao Wu, Hossein Yavartanoo "N = 2 SCFTs: An M5-brane perspective" JHEP 1004:078,2010
 49. Jae Hoon Jeong, Hee-Cheol Kim, Sangmin Lee, Eoin Ó Colgáin, Hossein Yavartanoo "Schrodinger invariant solutions of M-theory with Enhanced Supersymmetry", JHEP 1003:034,2010
 50. Eoin Ó Colgáin, Oscar Varela, Hossein Yavartanoo "Non-relativistic M-Theory solutions based on Kaehler-Einstein spaces" JHEP 0907:081,2009
 51. Eoin Ó Colgáin, Hossein Yavartanoo "Dyonic solution of Horava-Lifshitz Gravity" JHEP 0908:021,2009
 52. Eoin Ó Colgáin, Hossein Yavartanoo "Positronium-like states from supergravity" Nucl.Phys.B822:219-229,2009
 53. Eoin Ó Colgáin, Hossein Yavartanoo "NR CF T₃ duals in M-theory" JHEP 0909:002,2009
 54. Ki-Myeong Lee, Eoin Ó Colgáin, Hossein Yavartanoo, K.P. Yogendran "BPS D0-D6 Branes in Supergravity" JHEP 0903:009,2009
 55. Kevin Goldstein, Hossein Yavartanoo, "A note on non-linear electrodynamics, regular black holes and the entropy function" [arXiv:0711.3374].
 56. Hossein Yavartanoo, Sangheon Yun, "Higher derivative correction to Kaluza-Klein black hole solution" Eur.Phys.J.C57:797-808,2008
 57. Dumitru Astefanesei, Horatiu Nastase, Hossein Yavartanoo, Sangheon Yun, "Moduli flow and non-supersymmetric AdS attractors" JHEP 0804:074,2008.
 58. D. Astefanesei, H. Yavartanoo, "Stationary black holes and attractor mechanism" Nucl.Phys.B794:13-27,2008.
 59. B. Chandrasekhar and H. Yavartanoo, S. Yun, "Non-Supersymmetric Attractors in BI black holes" Phys.Lett.B660:392-401,2008.
 60. B. Chandrasekhar S. Parvizi, A. Tavanfar and H. Yavartanoo "Non-Supersymmetric Attractor in R² Gravities" JHEP 0608 (2006) 004
 61. Mohsen Alishahiha and Hossein Yavartanoo "On 1/2 BPS solutions in M-theory" published in Int.J.Mod.Phys.A
 62. Mohsen Alishahiha, Batool Safarzadeh and Hossein Yavartanoo, "On Supergravity Solutions of Branes in Melvin Universes" JHEP 0601:153,2006
 63. Hossein Yavartanoo, "Cosmological Solution from D-brane motion in NS5- branes background" Int.J.Mod.Phys.A20:7633-7645,2005
 64. Mohsen Alishahiha, Amir E. Mosaa and Hossein Yavartanoo, "Multi-spin string solutions in AdS Black Hole and conning backgrounds" Nucl.Phys. B686 (2004) 53-74
 65. Mohsen Alishahiha and Hossein Yavartanoo, "On the Multi Trace Superpotential and Corresponding Matrix Model" Eur.Phys.J. C32 (2004) 575-582
 66. Mohsen Alishahiha and Hossein Yavartanoo, "Supergravity Description of the Large N Noncommutative Dipole Field Theories" JHEP 0204 (2002) 031
 67. Hessamaddin Arfaei and Hossein Yavartanoo, "Phenomenological Consequences of Non-commutative" QED [arXiv: hep-th/0010244]