

Yogesh

Curriculum Vitae

Centre for Cosmology and Science Popularization
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Date of Birth 11 June 1987
Nationality Indian

Contact Information

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Research Interests

Inflation, Brane world cosmology, Supergravity, Reheating, Primordial Black Holes

Education

Centre for Theoretical Physics, Jamia Millia Islamia, New Delhi, INDIA

Ph.D. Candidate, Physics, (Thesis submitted on 23 December 2021)

- Thesis Topic: "Probing models of inflation in early universe with cosmological observations"
- Supervisor: Dr. Rathin Adhikari

Jamia Millia Islamia, New Delhi, INDIA

M.Sc. Physics, 2012

IGNOU, New Delhi, INDIA

B.Sc. (Hons) Physics, 2010

Current Position

Research Assistant (post-doc) at Centre for Cosmology and Science Popularization
SGT University, Gurugram, Haryana 122505, India

Publications

- Lower tensor to scalar ratio in a SUGRA motivated inflationary potential**
Rathin Adhikari, Mayukh R. Gangopadhyay and **Yogesh** ,
Gravitation and Cosmology, 2022, Vol. 28, No. 1
arXiv: 1909.07217 [astro-ph.CO].
- Power law plateau inflation potential in the RS II braneworld evading swampland conjecture**
Rathin Adhikari, Mayukh R. Gangopadhyay and **Yogesh**,
Eur. Phys. J. C (2020) 80:899
arXiv: 2002.07061 [astro-ph.CO].
- Production of Primordial Black Holes via Single Field Inflation and Observational Constraints**
Mayukh R. Gangopadhyay, Jayesh C. Jain, Devanshu Sharma and **Yogesh**,

arXiv: 2108.13839 [astro-ph.CO].

4. **Study of Goldstone Inflation in the domain of Einstein-Gauss-Bonnet gravity**

Hussain Ahmed Khan and **Yogesh**

Phys.Rev.D 105 (2022) 6, 063526

arXiv: 2201.06439 [astro-ph.CO].

Talks Delivered/ Poster Presentation

1. **Lower tensor to scalar ratio in a SUGRA motivated inflationary potential**

Contributed talk in *National Symposium on Theoretical High Energy Physics*, S.G.T.B Khalsa College, University of Delhi December 20, 2019.

2. **Evading Swampland and TCC in RS-II Braneworld**

Contributed talk in *Midwest Relativity meeting-2020*, University of Notre Dame, USA, October 20-24 2020.

3. **Production of Primordial Black Holes via Single Field Inflation**

Contributed talk in *AAPPS-DACG Workshop on Astrophysics, Cosmology and Gravitation*, Asia Pacific Center for Theoretical Physics, Pohang, South Korea, November 9-13 2021.

4. **Production of Primordial Black Holes via Single Field Inflation and Observational Constraints**

Contributed talk in *Midwest Relativity meeting-2021*, University of Illinois Urbana-Champaign, USA, November 11-13 2021.

Conference and Symposia Attended

- **Physics of the Early Universe - An Online Precursor**, ICTS, Bangalore, India, 31 August 2020 to 03 September 2020.
- **XVI Workshop on High Energy Physics Phenomenology (WHEPP)**, IIT Guwahati, Assam India, 1-10 December 2019.
- **Cosmology - The Next Decade (School)**, ICTS, Bangalore, India, 3-20 January 2019.
- **INDO-SOUTH AFRICA Workshop on Gravitation and Cosmology**, Centre for Theoretical Physics, Jamia Millia Islamia, New Delhi, 03-04 March 2018.
- **GIAN course on Cosmological and Theoretical Applications of Exact Solutions of Einstein's Equations**, Centre for Theoretical Physics, Jamia Millia Islamia, New Delhi, 12 to 23 February 2016.
- **General relativity Centennial, Centre for Theoretical Physics**, Jamia Millia Islamia, New Delhi, 10 to 12 December 2015.

Computer Skills

- Languages: C, Python, Basic Fortran, Use of Unix shell scripts
- Applications: Mathematica, \LaTeX database, spreadsheet, and presentation software
- Cosmology Packages: CosmoMath, Monte-Python and Class
- Operating Systems: Unix/Linux, Windows, macOS.