

CURRICULUM VITAE

Alipriyo Hoory

Graduate student
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ABOUT ME

Currently, I am a M.Sc-Ph.D. Dual degree, tenth semester student at the Indian Institute of Technology Madras (IIT Madras), India working under the supervision of Prof. L. Sriramkumar

PERSONAL DETAILS

Nationality	Indian
Date-of-Birth	February 12, 1999

EDUCATIONAL QUALIFICATIONS

BSc. in Physics 2017–2020 CGPA:7.71 of 10

Ramakrishna Mission Residential College, Kolkata, India

Subsidiary subjects: Mathematics, Computer Science, English, Bengali, Environmental Science.

M.Sc –Ph.D Dual degree in Physics 2020–Present CGPA:8.48 of 10

Indian Institute of Technology Madras, Chennai, India

Ph.D supervisor: Prof. L. Sriramkumar.

RESEARCH INTERESTS

- Constructing machine learning approaches to constrain models of inflation
- Behavior of the spectral density of primary gravitational waves in the ultra-violet limit
- Understanding reheating inflationary dynamics
- Understanding the formation and evolution of the primordial black holes

LIST OF PUBLICATIONS IN REVERSE CHRONOLOGICAL ORDER

1. **Alipriyo Hoory**, Jérôme Martin, Arnab Paul, and L. Sriramkumar *Effects of regularization and smooth transitions on primary gravitational waves I: Signatures at high frequencies*, [arXiv:2301.01641](#)

TALKS DELIVERED AT CONFERENCES

1. Delivered a talk titled “ *Effects of regularization and smooth transitions on primary gravitational waves*” at the **National Meeting in Cosmology: Cosmic Connections: Bridging the Early and Late Universe in The Institute of Mathematical Sciences (IMSc)** during July 28-August 1, 2025.

PROJECT

Title : Quantum Phase Transition and Loschmidt Echo 2019–2020

Presidency University, Kolkata

Guide: Dr. Atanu Rajak

Title : Traversable Wormholes 2021–2022

Indian Institute of Technology, Madras

Guide: Dr. Prasanta Kumar Tripathy

FELLOWSHIP AND AWARDS

1. Recieved a Fellowship of **Swami Vivekananda Merit Cum Means scholarship** in 2017-2020.
2. Recieved a Fellowship of **Merit-cum Means Scholarship (Indian Institute of Technology Madras, Chennai)** in 2020-2022.
3. Awarded with **International Immersion Experience (IIE) Award** and visited **Institut d’Astrophysique de Paris, France**, May 6–July 5, 2025.

INVITED TALKS

- Delivered a talk on ‘**Effects of regularization and smooth transitions on primary gravitational waves**’, in **Institut de Ciéncies del Cosmos Universitat de Barcelona (ICCUB), Barcelona, Spain**, on 10th June, 2025.

TEACHING EXPERIENCE

1. Worked as a teaching assistant in the B. Tech 1st year physics theory course (PH1010) at IIT Madras in the Winter semester (July-Nov) of 2022
2. Worked as a teaching assistant in the Advance General Relativity (PH5875) at IIT Madras in the Summer semester (Jan-May) of 2023

SKILLS

Software	Python, Fortran, MATHEMATICA, L ^A T _E X
Languages	Bengali (mother tongue), English, Hindi

EXAMS QUALIFIED

1. Qualified as a JRF in UGC-CSIR NET (National Eligibility Test) in 2021 June conducted by Council of Scientific and Industrial Research, Human Resource Development Group, India
2. Qualified as a JRF in UGC-CSIR NET (National Eligibility Test) in 2022 June conducted by Council of Scientific and Industrial Research, Human Resource Development Group, India
3. Qualified Joint Admission for M.Sc. (JAM) in 2020

WORKSHOPS ATTENDED

1. Attended **IAGRG school on Gravitation and Cosmology**, International Centre for Theoretical Science, Bengaluru, India, October 14–October 25, 2024.
2. Attended **Vigyan Pathshala, on ‘Physics of inflation and reheating’** at the Raman Research Institute, Bengaluru, India, July 13–July 25, 2024.

3. Attended **Technical and Scientific Writing Workshop**, Indian institute of technology, Madras, India, November 27–December 1, 2023.
4. Attended **Statistical Methods and Machine Learning in High Energy Physics**, International centre for theoretical science, Bengaluru, India, August 28–September 9, 2023.
5. Attended **Indian Association for General Relativity and Gravitation (IAGRG)** School, Online, May 16–22, 2022.
6. Attended **Physics of the Early Universe (hybrid)**, International centre for theoretical science, Bengaluru, India, January 3–12, 2022.

REFERENCES

1. **Prof. L Sriramkumar**
Department of Physics, Indian Institute of Technology Madras, Chennai 600036, India
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E-mail: sriram@physics.iitm.ac.in
2. **Prof. Jérôme Martin**
Institut d’Astrophysique de Paris, 98 bis boulevard Arago, F-75014 Paris, France
E-mail: jmartin@iap.fr
3. **Dr. Dhiraj Kumar Hazra**
Reader, Department of Physics, The Institute of Mathematical Sciences, Chennai 600113, India
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