

CURRICULUM VITAE

PERSONAL INFORMATION

Jishnu Suresh

18-01-1990

<https://jishnu-suresh.github.io/jishnu.html>

○ EDUCATION

- 2016 Ph. D.
Prof. V. C. Kuriakose, Department of Physics, Cochin University of Science and Technology, Kochi, India.
Topic: “Thermodynamics and Geometrothermodynamics of black holes in modified theories of gravity”
- 2012 Master of Science
Department of Physics, Cochin University of Science and Technology, Kochi, India.
- 2010 Bachelor of Science
Department of Physics, University of Calicut, Calicut, India.

○ POSITIONS HELD

- 2016 - 2019 Post Doctoral Fellow
Inter-University Centre for Astronomy and Astrophysics (IUCAA),
Pune, India.
- 2019 – Post Doctoral Fellow
Institute for Cosmic Ray Research (ICRR), University of Tokyo,
Kashiwa, Japan

○ FELLOWSHIPS AND AWARDS

- 2012 University Grant Commission major research fellowship, Department of Physics,
Cochin University of Science and Technology, Kochi, India.
- 2012 Qualified the Graduate Aptitude Test in Engineering (GATE), conducted by the Ministry of
Human Resource Development (MHRD).

○ SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

- 2018 3-Master Students:
Sambit Panda – BITS Pilani, Rajasthan , India.
Anitta Sunny – Calicut University, Kerala , India.
Radhika Manoj – Calicut University, Kerala , India.
- 2017 1-Master Student:
Mahith Madankumar - Cochin University of Science and Technology, Kochi, India.
- 2015 2-Master Students:
Masroor CP – Mahathma Gandhi University, Kottayam, India.

○ **TEACHING ACTIVITIES**

- 2017 Tutor - General relativity, Pune University Masters course, Pune, India.
- 2016 Tutor – Group theory and Advanced mathematical techniques, Cochin University of Science and Technology, Kochi, India.
- 2015 Tutor - General relativity, Cochin University of Science and Technology, Kochi, India.

○ **ORGANISATION OF SCIENTIFIC MEETINGS**

- 2015 Co-organizer, Gravitational Wave Workshop, Cochin University of Science and Technology, Kochi, India.
- 2015 Co-organizer, School on Gravitation and Cosmology-II, Cochin University of Science and Technology, Kochi, India.
- 2014 Co-organizer, School on Gravitation and Cosmology-I, Cochin University of Science and Technology, Kochi, India.

○ **INSTITUTIONAL RESPONSIBILITIES**

- 2018 Co-organizer of the Internal Seminar, Friday Talk series, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, India

○ **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

- 2019 Member, KAGRA collaboration since 2019
- 2018 Member, Indian Association for General Relativity and Gravitation (IAGRG) since 2018
- 2016 Member, LIGO-Scientific Collaboration (LSC) since 2016

○ **MAJOR COLLABORATIONS**

- 2016 - 2019 LIGO-India, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, India
- 2019 - KAGRA collaboration

LIST OF PUBLICATIONS

1) Search for transient gravitational wave signals associated with magnetar bursts during Advanced LIGO's second observing run
By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).
arXiv:1902.01557 [astro-ph.HE].

2) Low-Latency Gravitational Wave Alerts for Multi-Messenger Astronomy During the Second Advanced LIGO and Virgo Observing Run
By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1901.03310 [astro-ph.HE].

3) First measurement of the Hubble constant from a dark standard siren using the Dark Energy Survey galaxies and the LIGO/Virgo binary-black-hole merger GW170814

By DES and LIGO Scientific and Virgo Collaborations (M. Soares-Santos et al.).

arXiv:1901.01540 [astro-ph.CO].

Submitted to: Astrophys.J..

4) Searches for Continuous Gravitational Waves from Fifteen Supernova Remnants and Fomalhaut b with Advanced LIGO

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1812.11656 [astro-ph.HE].

5) Binary Black Hole Population Properties Inferred from the First and Second Observing Runs of Advanced LIGO and Advanced Virgo

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1811.12940 [astro-ph.HE].

6) GWTC-1: A Gravitational-Wave Transient Catalog of Compact Binary Mergers Observed by LIGO and Virgo during the First and Second Observing Runs

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1811.12907 [astro-ph.HE].

7) Tests of General Relativity with GW170817

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1811.00364 [gr-qc].

8) Search for Multi-messenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during its first Observing Run, ANTARES and IceCube

By ANTARES and IceCube and LIGO and Virgo Collaborations (A. Albert et al.).

arXiv:1810.10693 [astro-ph.HE].

[10.3847/1538-4357/aaf21d](https://arxiv.org/abs/10.3847/1538-4357/aaf21d).

Astrophys.J. 870 (2019) no.2, 134.

9) Search for gravitational waves from a long-lived remnant of the binary neutron star merger GW170817

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1810.02581 [gr-qc].

10) A Fermi Gamma-ray Burst Monitor Search for Electromagnetic Signals Coincident with Gravitational-Wave Candidates in Advanced LIGO's First Observing Run

By LIGO Scientific and Virgo Collaborations and Fermi Gamma-ray Burst Monitor Team (E. Burns et al.).

arXiv:1810.02764 [astro-ph.HE].

11) Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1808.04771 [astro-ph.CO].

[10.1103/PhysRevLett.121.231103](https://arxiv.org/abs/10.1103/PhysRevLett.121.231103).

Phys.Rev.Lett. 121 (2018) no.23, 231103.

12) Properties of the binary neutron star merger GW170817

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1805.11579 [gr-qc].

[10.1103/PhysRevX.9.011001](https://arxiv.org/abs/10.1103/PhysRevX.9.011001).

Phys.Rev. X9 (2019) no.1, 011001.

13) GW170817: Measurements of neutron star radii and equation of state
By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).
arXiv:1805.11581 [gr-qc].

[10.1103/PhysRevLett.121.161101](https://arxiv.org/abs/10.1103/PhysRevLett.121.161101).

Phys.Rev.Lett. 121 (2018) no.16, 161101.

14) Very fast stochastic gravitational wave background map making using folded data
By Anirban Ain, Jishnu Suresh, Sanjit Mitra.

arXiv:1803.08285 [gr-qc].

[10.1103/PhysRevD.98.024001](https://arxiv.org/abs/10.1103/PhysRevD.98.024001).

Phys.Rev. D98 (2018) no.2, 024001.

15) Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background
By LIGO Scientific and Virgo Collaborations (Benjamin P. Abbott et al.).

arXiv:1802.10194 [gr-qc].

[10.1103/PhysRevLett.120.201102](https://arxiv.org/abs/10.1103/PhysRevLett.120.201102).

Phys.Rev.Lett. 120 (2018) no.20, 201102.

16) Full Band All-sky Search for Periodic Gravitational Waves in the O1 LIGO Data
By LIGO Scientific and Virgo Collaborations (Benjamin P. Abbott et al.).

arXiv:1802.05241 [gr-qc].

[10.1103/PhysRevD.97.102003](https://arxiv.org/abs/10.1103/PhysRevD.97.102003).

Phys.Rev. D97 (2018) no.10, 102003.

17) GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences

By LIGO Scientific and Virgo Collaborations (Benjamin P. Abbott et al.).

arXiv:1710.05837 [gr-qc].

[10.1103/PhysRevLett.120.091101](https://arxiv.org/abs/10.1103/PhysRevLett.120.091101).

Phys.Rev.Lett. 120 (2018) no.9, 091101.

18) Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory

By ANTARES and IceCube and Pierre Auger and LIGO Scientific and Virgo Collaborations (A. Albert et al.).

arXiv:1710.05839 [astro-ph.HE].

[10.3847/2041-8213/aa9aed](https://arxiv.org/abs/10.3847/2041-8213/aa9aed).

Astrophys.J. 850 (2017) no.2, L35.

19) On the Progenitor of Binary Neutron Star Merger GW170817

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1710.05838 [astro-ph.HE].

[10.3847/2041-8213/aa93fc](https://arxiv.org/abs/10.3847/2041-8213/aa93fc).

Astrophys.J. 850 (2017) no.2, L40.

20) Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817

By LIGO Scientific and Virgo Collaborations (B.P. Abbott et al.).

arXiv:1710.05836 [astro-ph.HE].

[10.3847/2041-8213/aa9478](https://arxiv.org/abs/10.3847/2041-8213/aa9478).

Astrophys.J. 850 (2017) no.2, L39.

21) A gravitational-wave standard siren measurement of the Hubble constant

By LIGO Scientific and Virgo and IM2H and Dark Energy Camera GW-E and DES and DLT40 and Las Cumbres Observatory and VINROUGE and MASTER Collaborations (B.P. Abbott et al.).

arXiv:1710.05835 [astro-ph.CO].

[10.1038/nature24471](https://doi.org/10.1038/nature24471).

Nature 551 (2017) no.7678, 85-88.

22) Gravitational Waves and Gamma-rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A

By LIGO Scientific and Virgo and Fermi-GBM and INTEGRAL Collaborations (B.P. Abbott et al.).

arXiv:1710.05834 [astro-ph.HE].

[10.3847/2041-8213/aa920c](https://doi.org/10.3847/2041-8213/aa920c).

Astrophys.J. 848 (2017) no.2, L13.

23) GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral

By LIGO Scientific and Virgo Collaborations (B. P. Abbott et al.).

arXiv:1710.05832 [gr-qc].

[10.1103/PhysRevLett.119.161101](https://doi.org/10.1103/PhysRevLett.119.161101).

Phys.Rev.Lett. 119 (2017) no.16, 161101.

24) First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data

By LIGO Scientific and Virgo Collaborations (Benjamin P. Abbott et al.).

arXiv:1710.02327 [gr-qc].

[10.1103/PhysRevD.96.122006](https://doi.org/10.1103/PhysRevD.96.122006), [10.1103/PhysRevD.97.129903](https://doi.org/10.1103/PhysRevD.97.129903).

Phys.Rev. D96 (2017) no.12, 122006, Erratum: Phys.Rev. D97 (2018) no.12, 129903.

25) Geometrothermodynamics of BTZ black hole in new massive gravity

By Jishnu Suresh, V.C. Kuriakose.

arXiv:1606.06098 [gr-qc].

26) Thermodynamics and Geometrothermodynamics of Black holes in Modified Theories of Gravity

By Jishnu Suresh.

27) Entropy spectrum of BTZ black hole in massive gravity

By Jishnu Suresh, V.C. Kuriakose.

arXiv:1605.00142 [gr-qc].

28) Thermodynamics and Geometrothermodynamics of Charged black holes in Massive Gravity

By Jishnu Suresh, C P Masroor, Geethu Prabhakar, V C Kuriakose.

arXiv:1603.00981 [gr-qc].

29) Thermodynamics of Charged Lovelock - AdS Black Holes

By C.B. Prasobh, Jishnu Suresh, V.C. Kuriakose.

arXiv:1510.04784 [gr-qc].

[10.1140/epjc/s10052-016-4062-4](https://doi.org/10.1140/epjc/s10052-016-4062-4).

Eur.Phys.J. C76 (2016) no.4, 207.

30) Entropy spectrum of (1+1) dimensional stringy black holes

By Jishnu Suresh, V.C. Kuriakose.

arXiv:1501.04852 [gr-qc].

[10.1140/epjc/s10052-015-3444-3](https://doi.org/10.1140/epjc/s10052-015-3444-3).

Eur.Phys.J. C75 (2015) no.5, 214.

31) A unified thermodynamic picture of Hořava-Lifshitz black hole in arbitrary space time

By Jishnu Suresh, R. Tharanath, V.C. Kuriakose.

arXiv:1408.0911 [gr-qc].

[10.1007/JHEP01\(2015\)019](https://arxiv.org/abs/10.1007/JHEP01(2015)019).

JHEP 1501 (2015) 019.

32) Phase transitions and Geometrothermodynamics of Regular black holes

By R. Tharanath, Jishnu Suresh, V.C. Kuriakose.

arXiv:1406.3916 [gr-qc].

[10.1007/s10714-015-1884-6](https://arxiv.org/abs/10.1007/s10714-015-1884-6).

Gen.Rel.Grav. 47 (2015) no.4, 46.

33) Thermodynamic Geometry of Reissner-Nordström-de Sitter black hole and its extremal case

By R. Tharanath, Jishnu Suresh, Nijo Varghese, V.C. Kuriakose.

arXiv:1404.6789 [gr-qc].

[10.1007/s10714-014-1743-x](https://arxiv.org/abs/10.1007/s10714-014-1743-x).

Gen.Rel.Grav. 46 (2014) 1743.

34) The thermodynamics and thermodynamic geometry of the Park black hole

By Jishnu Suresh, R. Tharanath, Nijo Varghese, V.C. Kuriakose.

arXiv:1403.4710 [gr-qc].

[10.1140/epjc/s10052-014-2819-1](https://arxiv.org/abs/10.1140/epjc/s10052-014-2819-1).

Eur.Phys.J. C74 (2014) 2819.

35) Thermodynamics and quasinormal modes of Park black hole in Horava gravity

By Jishnu Suresh, V.C. Kuriakose.

arXiv:1310.2011 [gr-qc].

[10.1140/epjc/s10052-013-2613-5](https://arxiv.org/abs/10.1140/epjc/s10052-013-2613-5).

Eur.Phys.J. C73 (2013) no.10, 2613.

36) Area spectrum and thermodynamics of KS black holes in Horava gravity

By Jishnu Suresh, V.C. Kuriakose.

arXiv:1307.6438 [gr-qc].

[10.1007/s10714-013-1565-2](https://arxiv.org/abs/10.1007/s10714-013-1565-2).

Gen.Rel.Grav. 45 (2013) 1877-1886.

37) Modified holographic Ricci dark energy model and statefinder diagnosis in flat universe

By Titus K. Mathew, Jishnu Suresh, Divya Divakaran.

arXiv:1207.5886 [astro-ph.CO].

[10.1142/S0218271813500569](https://arxiv.org/abs/10.1142/S0218271813500569).

Int.J.Mod.Phys. D22 (2013) 1350056.

PRESENTATIONS IN CONFERENCES AND MEETINGS

- (contributor), Updates on PyStoch, A. Ain and *J. Suresh*, LIGO-Virgo Collaboration meeting, 28-08-2017 to 01-09-2017, CERN, Geneva.
- (contributor), Efficient mapmaking of the stochastic gravitational wave background, A. Ain and *J. Suresh*, 03-09-2017 to 05-09-2017, INFN-Pisa, Pisa.
- (presenter), O1/O2 folded data set and PyStoch updates, *J. Suresh* and S. Mitra, LIGO-Virgo Collaboration meeting, 19-03-2018 to 22-03-2018, Sonoma State University, Sonoma.

- (contributor), Efficient Techniques to Probe Stochastic Gravitational Wave Background Anisotropy with Ground-based Detectors, A. Ain, *J. Suresh* and S. Mitra, Fifteenth Marcel Grossmann Meeting – MG15, 01-07-2018 to 07-07-2018, University of Rome “La Sapienza”, Rome.
- (presenter), O2 folded data set, PyStoch and O3 plans, *J. Suresh* and S. Mitra, LIGO-Virgo Collaboration meeting, 04-09-2018 to 07-09-2018, Maastricht University, Maastricht.

REFERENCE

1. Prof. Sanjit Mitra
Associate Professor
Inter-University Centre for Astronomy and Astrophysics (IUCAA)
Post Bag 4, Ganeshkind, Pune - 411007, India.
Email: sanjit@iucaa.in
2. Prof. Bala Iyer
International Centre for Theoretical Sciences (ICTS)
Tata Institute for Fundamental Research,
Survey No. 151, Shivakote Village,
Hesaraghatta Hobli, Bengaluru (North) – 560089, India
Email: bala.iyer@icts.res.in
3. Prof. Joseph D Romano
Professor
Department of Physics and Astronomy
The University of Texas Rio Grande Valley (UTRGV)
BCAVL 105 H
Email: joseph.d.romano@gmail.com
4. Prof. Sukanta Bose
Professor Inter-University Centre for Astronomy and Astrophysics (IUCAA)
Post Bag 4, Ganeshkind, Pune - 411007, India.
Email: sukanta@iucaa.in