CURRICULUM VITAE

PERSONAL INFORMATION

Suresh, Jishnu
18-01-1990
www.gw.iucaa.in/jishnu-suresh/

- **EDUCATION**

2016 Ph. D.
Prof. V. C. Kuriakose, Department of Physics, Cochin University of Science and Technology, Kochi, India.

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.

- **CURRENT POSITION(S)**

2016 - till now Post Doctoral Fellow
Prof. Sanjit Mitra, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, India.

- **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.
Geethu Prabhakar – 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**

2016 Member, LIGO-Scientific Collaboration (LSC) since 2016

- **MAJOR COLLABORATIONS**

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

PRESENTATIONS IN CONFERNCES 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.

LIST OF SELECTED PUBLICATIONS

(six most important papers, a full list is specified in the list of publication attachment)

1. 'Very fast stochastic gravitational wave background map making using folded data',
   A. Ain, *J. Suresh*, S. Mitra., Phys.Rev. D98 (2018) no.2, 024001.
   arXiv:1803.08285 [gr-qc].
   (Lead the effort in developing this pipeline named 'PyStoch', along with the graduate student Anirban)

2. 'Probing the anisotropies of stochastic gravitational wave background using regularized denconvolution method',
   S. Panda, S. Bhagwat, *J. Suresh*, S. Mitra (under collaboration revision, will be available soon in arxiv)
   (LIGO-P1800278)
   (Mentored S. Panda, master student, in developing and implementing the regularization in the deconvolution process. Contributed in developing the techniques from statistical point of view)

3. 'Component separation map making for stochastic gravitational wave background',
   A. Parida, *J. Suresh*, S. Mitra, S. Jhingan (under collaboration revision, will be available soon in arxiv)
   (LIGO-P1800283)
   (Contributed in the sky-map making process by considering the full advantages of PyStoch and folded data pipelines)

4. 'Thermodynamics of Charged Lovelock - AdS Black Holes',
   C.B. Prasobh, *J. Suresh*, V.C. Kuriakose., Eur.Phys.J. C76 (2016) no.4, 207.
   arXiv:1510.04784 [gr-qc].
   (Contributed in the mathematical formulation of Geometrothermodynamics in the Lovelock gravity models)

5. 'A unified thermodynamic picture of Hořava-Lifshitz black hole in arbitrary space time',
   J. Suresh, R. Tharanath, V.C. Kuriakose., JHEP 1501 (2015) 019.
   arXiv:1408.0911 [gr-qc].
   (Analytically solved Hořava-Lifshitz graity model for different black hole solutions and applied the differential geometry methods to extract different thermodynamic behaviour of the black hole system in different space-time scenarios)

6. 'The thermodynamics and thermodynamic geometry of the Park black hole',
   J. Suresh, R. Tharanath, Nijo Varghese, V.C. Kuriakose., Eur.Phys.J. C74 (2014) 2819.
   (Developed and analysed the thermodynamic behaviour of black hole solutions in Hořava-Lifshitz graity model and try to address different behaviours of the system and studied the phase transitions)

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. Sukanta Bose
Professor
Inter-University Centre for Astronomy and Astrophysics (IUCAA)
Post Bag 4, Ganeshkind, Pune - 411007, India.
Email: sukanta@iucaa.in