

Curriculum Vitae

Archana Pai

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Present Positions

Professor, Department of Physics, IIT Bombay

04/2022 -

Past Positions

SERB Power Fellow, Department of Science and Technology	03/2021 - 03/2024
Associate Professor, Department of Physics, IIT Bombay	07/2017 - 04/2022
Associate Professor, School of Physics, IISER Trivandrum	06/2017 - 07/2017
Assistant Professor, School of Physics, IISER Trivandrum	08/2009 - 06/2017
Visiting Fellow, Albert Einstein Institute, Potsdam, Germany	04/2008 - 05/2009
Post Doctoral Fellow, Albert Einstein Institute, Potsdam, Germany	10/2005 - 04/2008
INFN Post Doctoral Fellow, Universita di Roma "La Sapienza", Rome, Italy	09/2003 - 10/2005
Post Rouge, CNRS, Observatoire de la Côte d'Azur (OCA), Nice, France	01/2003 - 06/2003
Henri Poincaré Fellow, Observatoire de la Côte d'Azur, Nice, France	01/2002 - 12/2002

Education

Ph.D. Inter-University Center for Astronomy and Astrophysics, India (under Univ. of Pune)	1996–2001
Master of Science (Physics) : IIT Bombay, Mumbai, India	1994-1996
Bachelor of Science (Physics) : University of Mumbai (D. G. Ruparel College, Mumbai)	1991-1994

Research interests

Multi-detector gravitational wave astronomy with black hole binaries, Signal detection algorithms for gravitational wave transients, Testing GR with gravitational wave observations, Multi-messenger astronomy

Research highlights

78 publications in peer reviewed international journals ¹

Author of the [Gravitational Wave Discovery Paper](#) with 20000+ citations.

Leading contribution in the Intermediate mass black hole search in the LIGO-Virgo data with [the first and second observational run data](#) as well as [the third observational run](#) data.

The thesis work has 180+ citations and has direct relevance in multi-detector searches.

Graduated 5 Ph.D. students and mentored 6 postdoctoral fellows and several B.Tech, M. Sc. students.

Mentoring 3 Ph.D. students, 1 postdoctoral fellow and several project students

¹This includes ONLY those publications of LIGO/Virgo/ROG collaboration with direct contribution from the group. The full list of publications as a member of international gravitational-wave collaborations can be found in [Google-Scholar](#)

50+ invited talks at the scientific workshops/conferences, 40+ science outreach/public talks

Awards/Grants/Achievements

Peraiah Foundation Lecture for the year 2023	05/01/2024
Vaidya-Raychaudhury Endowment Award lecture for the year 2022	December 2022
PI, LIGO-India Scientific Collaboration	08/2022–
SERB Power fellowship, 2021 DST India	2021 –
SERB MATRICS Grant: Sole-PI, <i>Probing eccentric binary black holes with LIGO detectors</i>	2020 –
IIT-Bombay IRCC Seed Grant: <i>Probing compact binaries in the multi-messenger Era</i>	2017-21
The Group achievement award in astronomy of the UK Royal Astronomical Society <i>Awarded by Royal Astronomical Society to the LIGO team the direct detection of gravitational waves</i>	Year 2017
2016 Gruber Prize in Cosmology Gruber foundation officially recognized the role of LIGO team members in the LIGO discovery	Year 2016
Special Breakthrough Prize in Fundamental Physics for LIGO-Virgo Scientific Collaboration <i>Shared as a Member of LIGO Scientific Collaboration and an author of Gravitational Wave Detection paper</i>	Year 2016
Recipient of Savitri Sanman: <i>Awarded by Maharashtra Channel 1 on Woman's Day</i>	Year 2016
Indo-French CEFIPRA bi-lateral Grant Indian PI, <i>Wavelet graph strategy for the coherent search of the compact binary coalescences</i> <i>Bi-lateral grant with Prof. É. Chassande-Mottin, AstroParticle and Cosmology (APC), Paris under Indo French Center for the Promotion of Advanced Research (IFCPAR)</i>	2016–20
Elected member of International Astronomical Union	Year 2015
Recipient of N. R. Sen Young Scientist Award <i>Awarded by Indian Association of General Relativity and Gravitation (IAGRG).</i>	Year 2015
DST-JSPS Indo-Japanese bi-lateral Grant <i>Coherent multi-detector gravitational wave search using LCGT and advanced interferometers</i> Indian PI, <i>Bi-lateral grant with Japanese PI, Prof. H. Tagoshi, Osaka University</i>	2011–13
Max Planck Partner Group(MPPG) Grant Head of the MPPG on Gravitational Waves with Prof. Schutz, Albert Einstein Institute <i>Awarded by SERC, DST India and Max Planck Society, Germany</i>	2011–18
DST Fast Track for Young Scientist <i>Awarded by Department of Science and Technology (DST), India</i>	09/2011 – 09/2014
VIRGO EGO Science Forum (VESF) research grant <i>Jointly with Dr. É. Chassande-Mottin (AstroParticle and Cosmology, Paris).</i> Co-PI, <i>Network detection methods of Gravitational Waves</i>	01/2007-12/2008
Istituto Nazionale di Fisica Nucleare (INFN) Post-doctoral Research Fellowship	09/2003 - 09/2005
Henri Poincaré Fellowship	01/2002-12/2002
International Astronomical Union, Travel grant to visit Albert Einstein Insitute	1999
JRF and SRF, Centre of Scientific and Industrial Reserach, India	08/1996 - 10/2001
Merit holder with State Rank 16 in the Maharashtra State Board Examination	1989