

Curriculum Vitae

Archana Pai

Department of Physics, IIT Bombay
Indian Institute of Technology Bombay
Powai, Mumbai 400076, India

Phone: +91-22-2576-9380
Email: archana at phy.iitb.ac.in, archanap at iitb.ac.in
[Webpage and link to Group page](#)

Present Positions

Professor, Department of Physics, IIT Bombay 04/2022 -
SERB Power Fellow, Department of Science and Technology 03/2021 -

Past Positions

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

64 publications in peer reviewed international journals ¹

Author of the [Gravitational Wave Discovery Paper](#) with 12000+ 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 175+ citations and has direct relevance in multi-detector searches.

Graduated 3 PhD students and mentoring 4 Ph.D. students. Mentored 6 postdoctoral fellows.

40 invited talks at the scientific workshops and conferences.

¹This includes ONLY those publications of LIGO/Virgo/ROG collaboration with direct contribution from the group. The full list of 200+ publications as a member of international gravitational-wave collaborations can be found in [Google-Scholar](#)

Awards/Grants/Achievements

Chair/PI LIGO-India Scientific Collaboration	08/2022–
SERB Power fellowship, 2021 DST India	2021 –
SERB MATRICS Grant	2020 –
Sole-PI, <i>Probing eccentric binary black holes with LIGO detectors</i>	
IIT-Bombay IRCC Seed Grant	2017-21
<i>Probing compact binaries in the multi-messenger Era</i>	
The Group achievement award in astronomy of the UK Royal Astronomical Society	Year 2017
<i>Awarded by Royal Astronomical Society to the LIGO team the direct detection of gravitational waves</i>	
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	Year 2016
<i>Shared as a Member of LIGO Scientific Collaboration and an author of Gravitational Wave Detection paper</i>	
Recipient of Savithri (Savithribai Phule) Sanman	Year 2016
<i>Awarded by Maharashtra Channel 1 on Woman's Day</i>	
Indo-French CEFIPRA bi-lateral Grant	2016–20
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>	
Elected member of International Astronomical Union	Year 2015
Recipient of N. R. Sen Young Scientist Award	Year 2015
<i>Awarded by Indian Association of General Relativity and Gravitation (IAGRG).</i>	
DST-JSPS Indo-Japanese bi-lateral Grant	2011–13
<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>	
Max Planck Partner Group(MPPG) Grant	2011–18
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>	
DST Fast Track for Young Scientist	09/2011 – 09/2014
<i>Awarded by Department of Science and Technology (DST), India</i>	
VIRGO EGO Science Forum (VESF) research grant	01/2007-12/2008
<i>Jointly with Dr. É. Chassande-Mottin (AstroParticle and Cosmology, Paris).</i>	
Co-PI, <i>Network detection methods of Gravitational Waves</i>	
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 Institute	1999
JRF and SRF, Centre of Scientific and Industrial Research, India	08/1996 - 10/2001