
Dr. Arpita Choudhary
Curriculum Vitae



Personal Details

Name in Full: Dr. Arpita Choudhary
Date of Birth: October 2, 1986
Gender: Female
Nationality: Indian
Marital Status: Married
Languages known: English(fluent), Hindi(mother tongue), German and Tamil(to communicate)
Hobbies: Observing stars with Telescope, painting and reading books
Residential address: F-304,S&P Essense, Kamarajar Salai, Ayanambakkam, Chennai-600095.
Email address: arp.astro@gmail.com , arpita@mse.ac.in

Academic Profile

- WOS-A, DST, Post Doctoral Fellow - 2019 to 2022: from Institute of Mathematical Sciences, Chennai.
IMSc webpage: <https://www.imsc.res.in/>
- Post Doctoral Fellow - 2016 to 2018: from Institute of Mathematical Sciences, Chennai.
- P.hd (Astronomy and Astrophysics) - 2016: from Thüringer Landessternwarte Tautenburg, Germany.
TLS webpage: <http://www.tls-tautenburg.de/>
Thesis Title: Young star V1331 Cyg takes centre stage
Supervisor: Dr. Artie P. Hatzes and Dr. Bringfried Stecklum
- Master Thesis in Astrophysics - 2013: From Friedrich Schiller University, Jena, Germany
FSU webpage: <http://www.physik.uni-jena.de/>
Topic: Acoustic geometry under the influence of axisymmetric Black Hole accretion
Secured grade of 1.1 in thesis defense
- Post Graduation (Physics) - 2010: From University of Lucknow, India
Secured Rank I in the University among 80 students
- Graduation (Astronomy, Physics, Mathematics) - 2008: From University of Lucknow, India
- Intermediate: 2005(CBSE)
- High School: 2003(CBSE)

Awards

1. *Certificate of Merit* holder for English in intermediate in CBSE Board
2. First prize in *Science Poster competition* in 2006, organized by Vigyan Prasar and Dept. of Science and Technology, Delhi, on the topic **Big Bang**
3. **Gold Medalist** at Post Graduation level at University of Lucknow for being the overall Topper in M.Sc (Physics)
4. **Silver Medalist** at Post Graduation level at University of Lucknow for being the best women student in M.Sc (Physics)

Professional visits

1. Summer School of Physics at Indian Institute of Astrophysics, Kodaikanal, India in 2009
2. Post M.Sc project at Harish Chandra Research Institute, Allahabad, India from August 2010 to September 2011.
Worked with Dr. Tapas Kumar Das on *Accretion problem in Black Holes*
3. Visiting researcher at Goddard Space Flight Center, NASA, U.S.A from May 2014 to September 2014.
Worked with Dr. Karl Stapelfeldt on *Analysing HST data for YSO V1331 Cyg & proper motion analysis of HH30*

Conferences/Seminars

1. Protostars & Planets VI in Heidelberg, Germany in July, 2013.
Presented my PhD work poster (<http://www.mpia.de/homes/ppvi/posters/2B063.html>)
2. NCAD Meeting at Carnegie DTM, Washington D.C, U.S.A in July, 2014.
(<https://sites.google.com/site/ncad5dtm/home>)
3. DC/MD/VA Astrophysics Summer 2014 meeting in Washington D.C, U.S.A in July, 2014.
(<http://home.gwu.edu/~kargaltsev/AstroSummerInDC2014.html>)
4. ASI-2018 held at Osmania University, Hyderabad in February, 2018.
5. IPTA-2019 at NCRA, Pune in June, 2019.
Gave a talk on “**Mode changes in pulsar J2124-3358**”.
6. ASI-2020 held at IISER, Tirupati in February, 2020.
Gave a talk on “**Recent results on mode changes in pulsar J2124-3358**”.

Other Academic/Teaching experience

1. Five year (2005-2010) training experience of handling Auto tracking telescopes upto 14" at Indira Gandhi Planetarium,Lucknow,India. (<http://www.igplanetarium.org/>)
2. I am an executive member of Uttar Pradesh Amateur Astronomers Club,Lucknow,India and member of the team sent to Varanasi,India for recording **Total Solar Eclipse-2009**. (<http://www.upastronomyclub.org/>)
3. **Master Resource Trainee Certificate Holder** from Dept.of Science and Technology, New Delhi, India in 2009
4. **Teaching assistant** at the Friedrich Schiller University, Jena, Germany for two semesters. Held tutorials for master students on topics:
Sun and Sun like stars- April to July 2013 &
Astrophotonics- October 2014 to February 2015, one semester each.
5. Public talk in school on "Star formation" as part of outreach event hosted by ASI-2018 in Hyderabad.
6. Online public talk on **India's space program, Make in India initiative** at **Vigyan Utsav : Azadi ka Amrit Mahotsav (Basic Science for Atmanirbharatha)** organized by CST, UP in June, 2022.
7. **Guest Faculty at Madras School of Economics** for PGDM course students. Delivered a series of lectures on Calculus to Master students in July 2022.
8. **Assistant Professor** at the **Madras School of Economics** from July, 2023 to present

Computer & Programming skills

Languages:	Fortran-90, Python
Softwares:	Latex, Gnuplot, GIMP, TOPCAT, MS Office
Photometry packages:	SExtractor
HST PSF handling:	Tiny Tim
Image analysis:	IDL, IRAF
Radiative transfer codes:	HO-CHUNK.ttsre & MC3D
Pulsar timing:	PSRchive, Tempo2

Publications

1. The role of axisymmetric flow configuration in the estimation of the analogue surface gravity and related Hawking like temperature, Bilić, N., Choudhary,A., Das,T.K, & Nag, S. 2014, *Classical and Quantum Gravity*, 31, 035002
2. Hubble imaging of V1331 Cyg: proper motion study of its circumstellar structures, Choudhary,A., Stecklum,B., Linz,H. *A&A* 590, A106 (2016)
3. Precision pulsar timing with the ORT and the GMRT and its applications in pulsar astrophysics, Joshi ea., *Journal of Astrophysics and Astronomy*, Volume 39, Issue 4, article id. 51, 10 pp
4. pinta: The uGMRT data processing pipeline for the Indian Pulsar Timing Array, Susobhanan ea., *Publications of the Astronomical Society of Australia*, Volume 38
5. High precision measurements of interstellar dispersion measure with the upgraded GMRT, Krishnakumar ea., *A&A* Volume 651, id.A5, 11 pp
6. Evidence for profile changes in PSR J1713+0747 using the uGMRT, Singha ea. *MNRAS,Letters*, Volume 507, Issue 1, October 2021, Pages L57L61