

Curriculum Vitae - Deepak Eappachen

Postdoctoral Fellow,

Indian Institute of Astrophysics, Bangalore, India

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RESEARCH INTERESTS

Fast X-ray transients; transient host galaxies; electromagnetic counterparts to gravitational-wave sources; core-collapse supernovae; *Einstein Probe*-detected fast X-ray transients; gamma-ray bursts.

EDUCATION

PhD in Astrophysics, SRON Netherlands Institute for Space Research and Department of Astrophysics, IMAPP, Radboud University, the Netherlands (Sept 2018—Nov 2023).

Thesis: [The Origin of Fast X-ray Transients](#)

PhD awarded by Radboud University, Nijmegen, the Netherlands on 20th Nov 2023

Promotor: Prof. Peter Jonker; Co-Promotor: Dr. E. M. Rossi (Leiden University)

M.Sc. Physics (specialised in Astrophysics), Department of Physics, Savitribai Phule Pune University (Univ. of Pune)

BSc Physics (Mathematics, Chemistry), Mahatma Gandhi University, Kerala, India

RESEARCH EXPERIENCE

Institute Postdoctoral Fellow at Indian Institute of Astrophysics (IIA), Bangalore, India (June 2024 -present)

Host: Prof. D. K Sahu

Topics: *Fast X-ray Transients, Core-collapse Supernovae, Gamma-ray Bursts*

PhD Research Project at SRON and Radboud University (Sept 2018— 2023).

PhD Advisor: Prof. Peter Jonker

Topics: *The Origin of Fast X-ray Transients; Search for electromagnetic counterparts to gravitational waves using Gaia*

Master's Research Project at IUCAA, India (2016).

Advisor: Prof. R Srianand & Dr. Ravi Joshi

Topic: *Reverberation mapping of broad-line regions in AGN*

Indian Science Academies' Summer Research Fellowship at ARIES, India (2013)

Advisor: Dr. Santosh Joshi

Topic: *Search for Pulsational variabilities in A-type stars*

OBSERVING EXPERIENCE & ACCEPTED PROPOSALS

OBSERVATIONS:

- *William Herschel Telescope*, La Palma

(ACAM and LIRIS; Jan 19, Jun 19, Dec 19; Total : 15 nights)

- *Keck Telescope* (remotely from Caltech)

(MOSFIRE; Jul 19; Total : 2 nights)

ToO OBSERVATIONS:

- *Optical/NIR*: 0.7m GIT, GTC/OSIRIS, GTC/HiPERCAM, VLT/FORS2, Magellan/LDSS3, Keck/LRIS, HCT/HFOSC, HCT/TIRSPEC, VLT/MUSE, VLT/X-shooter

- *Radio*: uGMRT, VLA

as PI:

- *upgraded Giant Meterwave Radio Telescope* (ToO C49; 24 hours)

- *Himalayan Chandra Telescope* (ToO 2025C3; 18 hours)
- *Himalayan Chandra Telescope* (ToO 2025C2; 18 hours)
- *upgraded Giant Meterwave Radio Telescope* (ToO C48; 40 hours-Joint Allocation)
- *Devasthal Optical Telescope* (ToO 2025-C1-P29; 20 hours)
- *upgraded Giant Meterwave Radio Telescope* (DDT ddtC404 2024; 4 hours)
- *Himalayan Chandra Telescope* (ToO P8 2025C1; 18 hours)
- *upgraded Giant Meterwave Radio Telescope* (DDT ddtC38 2024; 8 hours)
- *upgraded Giant Meterwave Radio Telescope* (DDT ddtC39 2024; 8 hours)
- *Himalayan Chandra Telescope* (ToO 2024C3; 12 hours)
- *Very Large Telescope XSHOOTER & MUSE* (2020A; 12 hours)
- as Co-PI or Co-I (Selected):**
- *Very Large Array* (2024; DDT PI: Balasubramanian, 1hour)
- *XMM—Newton & VLT* (2023; ToO; PI- Jonker)
- *Gran Telescopio Canarias OSIRIS* (2022B; 4.5 hours, PI —Torres)
- *Baade 6.5m Telescope FourStar* (2022B, 0.5 nights, PI— Quirola)
- *Gemini- South Telescope GMOS* (2021B, 12 hours, PI—Quirola)
- *Baade 6.5m Telescope FourStar, FIRE, MagE* (2022A, 4 nights)
- *Gran Telescopio Canarias HiPERCAM* (2021; 1 hour, PI —Torres)
- *VLT XSHOOTER & FORS* : (4.5 hours Cycle P105; PI— Jonker)
- *TNG*: 1 night, *LT* : 5 Hours (2020A; PI— Cannizzaro)
- *William Herschel Telescope*: 23 days(2019B; PI— Jonker)
- *TNG*: 1 night, *LT* : 5 Hours (2019A; PI— Cannizzaro)
- *Himalayan Chandra Telescope* (ToO; Total of 66 hours)
- *William Herschel Telescope*: 8 days(2019A; PI— Jonker)

TALKS (SELECTED)

- o *Characterising FXTs in the EP Era through Multi-wavelength Follow-up*, FTSky Workshop, ICTS (Oct 2025)
- o *Understanding Fast X-ray Transients* , Department of Physics, IIT Bombay (April 2025)
- o *Multi-Wavelength Follow-up of EP-detected FXTs*, IIA in-house Symposium (April 2025)
- o *Understanding FXTs in the Era of Einstein Probe*, IIA Astrophysics Seminar (Sept 2024)
- o *XMM—Newton discovered FXTs*, Weekly Astronomy Meeting, Dept of Astrophysics, RU (Dec 2022)
- o *Host Studies of FXTs*, FXT meeting, Soeterbeeck, the Netherlands (Nov 2022)
- o *The Origin of FXTs*, Netherlands Research School for Astronomy NIII meeting, (Sept 2022)
- o *Fast X-ray Transient XRT 210423*, Weekly Astronomy Meeting, RU (June 2022)
- o *The Fast X-ray Transients*, South Regional Astronomers Meet, India (Sept 2021)
- o *The Origin of Fast X-ray Transients*, 75th Dutch Astronomers' Conference, (May2021)
- o *Deep Optical Search for the hosts of FXTs*, Weekly Astronomy Meeting, RU(March 2021)
- o *Reverberation mapping of BLR in AGN*, NOVA Fall School, (Oct 2018)

COLLABORATIONS/PROFESSIONAL MEMBERSHIP

Gaia (2018-2023), ENGRAVE (2018-2023), ePESSTO (2018-2023), BlackGEM (2018-2023), GROWTH (2024-Present), GROWTH-INDIA(2024-Present), Astronomical Society of India Life Membership (2025 April-Present)

TEACHING, OUTREACH AND ORGANISING (SELECTED)

- Teaching Assistant for Master's course "*Black Holes and Accretion*" at Radboud (2018, 2019)
- Teaching Assistant for Bachelor's course "*Introduction to GR*" at Radboud University (2019)
- Teaching Assistant for Bachelor's course "*Introduction to Newtonian Cosmology*" at Radboud (2020)
- Part of the organizing committee for the Netherlands Astronomy Olympiad 2019
- Social Media Manager and Poster Designer, Radboud Astrophysics Outreach (2019-2023)
- Volunteer for the ARTsonomy event during the National Science Day celebrations at IIA, 2025
- Public talk titled: *Transients: The Cosmic Fireworks of the Universe*, SH Thevara, India (Sept 2024)
- Public talk titled: *Wonders of Transient Sky*, Newman College, India (2024)
- Organiser of IIA-IITB Postdoc-PhD bi-weekly transient discussion meetings
- Member of the IIA Journal Club organising team
- Founding Member of Newman Association for Amateur Astronomy
- Member, Breakthrough Science Society – Kerala chapter; contributor to chapter activities

VISITS & CONFERENCES (SELECTED)

- FTSky: A program in the field of Fast Radio Transients, ICTS, TIFR, India, Oct 2025
- Research visit to STAR Lab, Indian Institute of Technology Bombay, April 2025
- Second Daksha Science Workshop (online), March 2025
- Transient 2024 meeting at IITB (online), April 2024
- Research Visit to *GAIA Transient Team*, IoA Cambridge (2 Weeks-2019; **COST Action Travel Grant**)
- European Astronomical Society Annual Meeting meeting 2022, Valencia
- Fast X-ray Transients meeting, Soeterbeeck, the Netherlands (Nov 2022)
- Netherlands Research School for Astronomy Network-III meeting, Radboud Univ, (Sept 2022)
- South Regional Astronomers Meet, India, Virtual, Sept 2021
- Dutch Astronomer's conference NAC 2021 (Virtual)
- BlackGEM Science Meeting - II, Radboud University, Nijmegen, Jun 2019
- NOVA Fall School, ASTRON, the Netherlands (Oct 2018).
- Radio Astronomy Winter School, IUCAA-NCRA TIFR, Pune, India, 2012
- Pulsar Observing Student program, NCRA, Ooty, India, 2012

LANGUAGES & SOFTWARES

Python, IRAF, SExtractor, C++, Fortran, Latex, Bash Scripting

REFERENCES

[Prof. Peter Jonker](#), Professor, Radboud University and SRON, the Netherlands
p.jonker@astro.ru.nl

[Prof. D. K. Sahu](#), Senior Professor, Indian Institute of Astrophysics(IIA), Bangalore
dks@iiap.res.in

[Prof. G. C. Anupama](#), INSA Scientist and Former Dean, IIA, Bangalore
gca@iiap.res.in

[Dr. Joe Jacob](#), Former Head of the Department of Newman College, Kerala, India,
drjoephysics@gmail.com

KEY COLLABORATORS

Dr. Jonathan Quirola-vasquez, Postdoctoral Researcher, Radboud Univerity; jonathan.quirolavasquez@ru.nl
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