

# DEEPAK EAPPACHEN

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Postdoctoral Fellow,  
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## RESEARCH INTERESTS

Fast X-ray Transients, Transient Host galaxies, Electromagnetic counterparts to gravitational wave sources, Observational Astrophysics, Transient Astronomy, Core-collapse Supernova

## EDUCATION

**Ph.D. 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](#)  
Advisor: Prof. Peter Jonker

**M.Sc. Physics** (specialised in **Astrophysics**) Department of Physics, Pune University

**B.Sc. Physics (Mathematics, Chemistry)**, Newman College, Thodupuzha, Mahatma Gandhi University, Kerala, India

## RESEARCH EXPERIENCE

[Institute Post Doctoral Fellow](#) at Indian Institute of Astrophysics (2024 Jun-present)  
Supervisor : Prof. D. K Sahu  
Topics: *Fast X-ray Transients; Core-collapse Supernova*

[PhD Research Project](#) at SRON and Radboud University (2018— 2023).  
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)

### as PI:

- *upgraded Giant Meterwave Radio Telescope* (DDT 2024; 8 hours)
- *Himalayan Chandra Telescope* (ToO 2024C; 12 hours)
- *Very Large Telescope* XSHOOTER & MUSE (2020A; 12 hours)

### as CO-I:

- *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)
- *William Herschel Telescope*: 8 days(2019A; PI— Jonker)

#### TALKS (SELECTED)

- o *Transients: The Cosmic Fireworks of the Universe*, [MRL Symposium](#), SH Thevara, India (Sept 2024)
- o *Understanding FXTs in the Era of Einstein Probe*, [IIA Astrophysics Seminar](#) ( Sept 2024)
- o *Wonders of Transient Sky*, [XIII<sup>th</sup> P S Cherian Memorial Lecture](#), Newman College, India (Feb 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](#), (Sept2022)
- o *Fast X-ray Transient XRT 210423*, [Weekly Astronomy Meeting](#), RU( June 2022)
- o *The Fast X-ray Transients*, [South Regional Astronomers Meet, India](#) (Sept2021)
- 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)

#### TEACHING AND OUTREACH

- Teaching Assistant for Master’s course “*Black Holes and Accretion*” at Radboud (2018, 2019)
- Teaching Assistant for Bachelors’s course “*Introduction to GR*” at Radboud University (2019)
- Teaching Assistant for Bachelors’s course “*Introduction to Newtonian Cosmology*” at Radboud (2020)
- Part of the organizing committee for the Netherlands Astronomy Olympiad 2019

#### VISITS & CONFERENCES (SELECTED)

- Research Visit to *GAIA Transient Alerts Team*, IoA Cambridge (2 Weeks; Feb 2019 & June 2019)
- 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 2021 (Virtual).
- BlackGEM Science Meeting - II, Radboud University, Nijmegen, Jun 2019
- NOVA Fall School, ASTRON, the Netherlands (Oct 2018).
- Time domain Astronomy and Cosmology Workshop, Kerala India, 2015
- 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](#), Radboud University and SRON, the Netherlands  
p.jonker@astro.ru.nl

[Dr. Morgan Fraser](#), University College, Dublin  
morgan.fraser@ucd.ie

[Dr. Joe Jacob](#), Newman College, Kerala, India  
drjoephysics@gmail.com

[Prof. D. K. Sahu](#), Indian Institute of Astrophysics, Bangalore, India  
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