

# TANMOY LASKAR

## CURRICULUM VITAE

Department of Physics & Astronomy  
University of Utah, USA

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scholar.harvard.edu/laskar

### PROFESSIONAL APPOINTMENTS

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2022 –	Assistant Professor, Physics & Astronomy, UNIVERSITY OF UTAH
2021 – 2022	Postdoctoral Researcher, RADBOUD UNIVERSITY RESEARCH ON <i>The Physics of Relativistic Astrophysical Transients</i>
2018 – 2021	Postdoctoral Researcher, UNIVERSITY OF BATH RESEARCH ON <i>Relativistic Transients: From Astrophysics to Cosmology</i>
2015 – 2018	JANSKY FELLOW, NATIONAL RADIO ASTRONOMY OBSERVATORY & UC BERKELEY RESEARCH ON <i>The Diversity and Versatility of Gamma-ray Bursts</i>

### EDUCATION

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2015	<b>Ph.D.</b> , Department of Astronomy, HARVARD UNIVERSITY
2014	<b>Secondary Field</b> , Department of Music, HARVARD UNIVERSITY
2011	<b>A.M.</b> , Department of Astronomy, HARVARD UNIVERSITY
2009	<b>B.A. Affiliated</b> (equiv. to <b>M.S.</b> ), Physics, TRINITY COLLEGE, CAMBRIDGE
2007	<b>B.S.</b> , Department of Physics, ST. STEPHEN'S COLLEGE, DELHI UNIVERSITY, INDIA

### PROFESSIONAL GRANTS

#### As Assistant Professor

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2023	JWST Observing Support, SPACE TELESCOPE SCIENCE INSTITUTE	TBD
2023	HST Observing Support, SPACE TELESCOPE SCIENCE INSTITUTE	TBD
2023	JWST Observing Support, SPACE TELESCOPE SCIENCE INSTITUTE	\$11,684
2023	Chandra Observing Support, CHANDRA X-RAY OBSERVATORY	\$82,000
2022	Student Observing Support, NATIONAL RADIO ASTRONOMY OBSERVATORY	\$35,000
		<b>\$128,684</b>

#### As Postdoc

2020	Summer Undergraduate Research Bursary, Royal Astronomical Society	£1200
2019	Student Observing Support, NATIONAL RADIO ASTRONOMY OBSERVATORY	\$30,792
2019	Observing Program Support, CHANDRA X-RAY OBSERVATORY	\$27,670
2019	Travel Award (Yokohama GRB 2019), CONFERENCE LOC	£300
2019	Travel Award (ALMA Science Results, Cagliari, Italy), RADIO NET	€410
2019	Travel Award (Centenary of Astrophysical Jets, Jodrell Bank UK), RADIO NET	£236
2019	Dean's International Strategy Support Fund, UNIVERSITY OF BATH	£1125
2019	Dean's Travel Support Award (Lindau Nobel Meeting), UNIVERSITY OF BATH	£525
2016	Research Support Award, NASA / JET PROPULSION LABORATORY	\$66,160
2015	Jansky Fellowship, NATIONAL RADIO ASTRONOMY OBSERVATORY	\$206,535
2015	Discretionary Research Award, NATIONAL RADIO ASTRONOMY OBSERVATORY	\$30,000
2015	Institutional Support Award, NATIONAL RADIO ASTRONOMY OBSERVATORY	\$9,000
		<b>\$374,936</b>

#### As PhD student

2011	Student Travel Support Award, INTERNATIONAL ASTRONOMICAL UNION	\$270
2011	Symposium 336 Registration Support, INTERNATIONAL ASTRONOMICAL UNION	\$200
		<b>\$470</b>

PRINCIPAL INVESTIGATOR OBSERVING GRANTS (<https://scholar.harvard.edu/laskar/observing>)

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MeerKAT: **50 hours**

Giant Meterwave Radio Telescope (GMRT): **595 hours**

Karl G. Jansky Very Large Array (VLA): **280.5 hours**

Australia Telescope Compact Array (ATCA): **582 hours**

enhanced Multi Element Remotely Linked Interferometer Network (e-MERLIN): **12 hours**

Very Long Baseline Array (VLBA): **57 hours**

Atacama Large Millimeter/Sub-millimeter Array (ALMA): **104.5 hours**

Northern Extended Millimeter Array (NOEMA): **74.5 hours**

Chandra X-ray Observatory: **205 ks**

European Southern Observatory: **15.4 hours**

Additional co-Investigator Observing grants: GBT, SMA, LCO-GT, Gemini, Magellan, MMT, Lick, Keck, *HST*, *JWST*, *Spitzer*, *XMM-Newton*, *NuSTAR*.

SELECTED AWARDS & HONORS

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- 2020 [Outstanding Contribution Award](#), UNIVERSITY OF BATH
- 2020 [Peter Troughton Prize](#), UNIVERSITY OF BATH
- 2019 Staff “[Recognising Excellence](#)” Award, FACULTY OF SCIENCE, UNIVERSITY OF BATH
- 2019 Lindau Nobel Laureate Meeting Delegate, BATH / ROYAL ASTRONOMICAL SOCIETY / LINDAU
- 2015 Jansky Fellowship, NATIONAL RADIO ASTRONOMY OBSERVATORY
- 2015 Commencement Marshall, Graduate School of Arts and Sciences, HARVARD UNIVERSITY
- 2013 Merit Fellowship, HARVARD UNIVERSITY
- 2012 Student Observing Support Award, NATIONAL RADIO ASTRONOMY OBSERVATORY
- 2009 Merrill Fellowship, HARVARD UNIVERSITY
- 2007 Jawaharlal Nehru Memorial Trust Scholarship, TRINITY COLLEGE, UNIVERSITY OF CAMBRIDGE

ACCEPTED PEER-REVIEWED PUBLICATIONS

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[72 Refereed Publications](#): 15 [First author](#), 57 Other-author, 3 [Student-led](#)  
[Google Scholar Citations](#): 4385+, h-index: 35

PRESS RELEASES

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As Assistant Professor

- 2023 [NASA’s WEBB MAKES FIRST DETECTION OF HEAVY ELEMENT FROM STAR MERGER \[UNIVERSITY OF UTAH\]](#)
- 2023 [NEW STUDY QUESTIONS DECADES-LONG UNDERSTANDING OF GAMMA RAY BURSTS \[UNIVERSITY OF UTAH\]](#)
- 2023 [GMRT OBSERVATIONS QUESTION DECADES-LONG UNDERSTANDING OF GAMMA RAY BURSTS \[TATA INSTITUTE OF FUNDAMENTAL RESEARCH\]](#)
- 2023 [BRIGHT GAMMA-RAY BURST CONFOUNDS MODELS OF BLACK HOLE BIRTH \[UC BERKELEY\]](#)
- 2023 [BRIGHTEST GAMMA-RAY BURST EVER OBSERVED REVEALS NEW MYSTERIES OF COSMIC EXPLOSIONS \[CENTER FOR ASTROPHYSICS | HARVARD & SMITHSONIAN\]](#)
- 2023 [COSMIC EXPLOSION IS BRIGHTEST OF ALL TIME \[LIVERPOOL JOHN MOORES UNIVERSITY\]](#)
- 2023 [NEW STUDY QUESTIONS DECADES-LONG UNDERSTANDING OF GAMMA RAY BURSTS \[STOCKHOLM UNIVERSITY\]](#)
- 2022 [FIRST DETECTION OF A GAMMA-RAY BURST FROM A COMPACT BINARY MERGER IN MM LIGHT \[NRAO, ALMA, Northwestern University, Radboud University, Utah, CfA | Harvard & Smithsonian\]](#)

As Postdoc

- 2022 [MYSTERIOUS BRIGHT FLASH IS A BLACK HOLE JET POINTING STRAIGHT AT EARTH](#)

– *Tanmoy Laskar: Curriculum Vitae* –

- 2021 [OUT WITH A BANG: EXPLOSIVE NEUTRON STAR MERGER CAPTURED FOR THE FIRST TIME IN MILLIMETER LIGHT](#)  
2020 [ASTRONOMERS DISCOVER UNEXPECTED LUMINOUS INFRARED LIGHT FROM CELESTIAL EXPLOSION](#)  
2019 [ASTRONOMERS MAKE FIRST DETECTION OF POLARISED RADIO WAVES IN GAMMA RAY BURST JETS](#)  
2018 [ENDURING RADIO “REBOUND” POWERED BY JETS FROM GAMMA-RAY BURST](#)

As PhD student

- 2013 [FIRST CONFIRMED REVERSE SHOCK IN A GAMMA-RAY BURST](#)

GRADUATE STUDENT SUPERVISION

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As Assistant Professor

- 2023 – **Corinna Peña**, UNIVERSITY OF UTAH, RESEARCH ADVISOR  
2023 Jun-Aug **Corinna Peña**, UNIVERSITY OF UTAH, SWIGART (SUMMER) PROJECT ADVISOR  
2023 – **Simon de Wet**, UNIVERSITY OF CAPE TOWN, PROJECT ADVISOR (VISITOR)  
2023 – **Genevieve Schroeder**, NORTHWESTERN, PROJECT ADVISOR

As Postdoc

- 2021 – 2022 **Simon de Wet**, UNIVERSITY OF CAPE TOWN, PROJECT ADVISOR  
2019 – 2022 **Genevieve Schroeder**, NORTHWESTERN, PROJECT ADVISOR & FINANCIAL SUPPORT  
2018 – 2021 **Eliot Ayache**, UNIVERSITY OF BATH, PROJECT ADVISOR  
2016 – 2017 **Sean Ressler**, UC BERKELEY, PROJECT ADVISOR

UNDERGRADUATE STUDENT SUPERVISION

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As Assistant Professor

- 2023 – **George McCarthy**, POST-BACCALAUREATE STUDENT (VISITOR)  
2023 – **Shamita Hanumasagar**, PROJECT STUDENT, GEORGIA TECH  
2023 – **Jude Horsley**, PROJECT STUDENT, UNIVERSITY OF UTAH  
2023 – **Clayton Miller**, PROJECT STUDENT, CU BOULDER  
2023 – **Gianlucas Sherrill Velarde**, EASTERN MICHIGAN UNIVERSITY  
2023 REU  
2023 Jun-Aug **Shamita Hanumasagar**, REU STUDENT, UNIVERSITY OF UTAH  
2023 Jun-Aug **Jude Horsley**, SURP STUDENT, UNIVERSITY OF UTAH  
2023 Jun-Aug **Clayton Miller**, SUMMER STUDENT, UNIVERSITY OF UTAH  
2023 Jun-Aug **Gianlucas Sherrill Velarde**, REU STUDENT, UNIVERSITY OF UTAH

As Postdoc

- 2020 – 2022 **George McCarthy**, RAS SUMMER STUDENT, UNIVERSITY OF BATH  
2020 – 2021 **Robert Myers**, SUMMER STUDENT, UNIVERSITY OF BATH  
2020 – 2021 **Jamie Broad**, MPhys STUDENT (PRIMARY ADVISOR), UNIVERSITY OF BATH  
2020 – 2021 **Hugo Edwards**, SUMMER STUDENT, UNIVERSITY OF BATH  
2019 – 2020 **Tara Howard**, BSc PROJECT STUDENT (PRIMARY ADVISOR), UNIVERSITY OF BATH  
2019 – 2020 **Claire Anderson**, BSc PROJECT STUDENT (PRIMARY ADVISOR), UNIVERSITY OF BATH  
2019 – 2020 **Gideon Brennan**, MPhys STUDENT (PRIMARY ADVISOR), UNIVERSITY OF BATH  
2019 – 2020 **Bradley Tafe**, MPhys STUDENT (PRIMARY ADVISOR), UNIVERSITY OF BATH  
2017 – 2019 **Michelle Myers**, RESEARCH ASSISTANT (FUNDING SUPPORT & ADVISOR), UC BERKELEY  
2015 – 2016 **Maxwell Genecov**, GRADUATE STUDENT (PRIMARY ADVISOR), UC BERKELEY  
2015 – 2016 **Michelle Myers**, UNDERGRADUATE SENIOR THESIS (ADVISOR), UC BERKELEY  
2010 – 2015 **Non-resident Tutor in Science**, ADAMS HOUSE, HARVARD UNIVERSITY  
2011 – 2012 **Sophomore Academic Advisor** (3 students), ADAMS HOUSE, HARVARD UNIVERSITY

TEACHING

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As Assistant Professor (courses taught at University of Utah)

Fall 2023	Physics 4060: Observational Astronomy (UNDERGRADUATE – Course design; teaching; re-designing and executing labs; assessment)
Fall 2022	Physics 5590: High Energy Astrophysics (GRADUATE – Course design; teaching; designing and executing labs; assessment, including all grading)

As PhD student (courses taught at Harvard University)

Astronomy 16:	Introductory Astronomy I for Majors (UNDERGRADUATE)
Astronomy 150:	Radiative Processes in Astrophysics (GRADUATE)
Astronomy 218:	Radio Astronomy (GRADUATE – Single-handedly redesigned labs over summer)

INVITED TALKS AT INTERNATIONAL CONFERENCES

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As Assistant Professor

2023 Oct	Fourth Gravi-Gamma Workshop	L'AQUILA, ITALY
2023 MAR	AAS HEAD MEETING	HAWAI'I, US
2022 SEP	Astrophysical Polarimetry in the time-domain era	LECCO, ITALY

As Postdoc

2022 JUL	Astrophysics with the CMB-S4 Survey (Part II)	CHICAGO, US
2022 MAY	International Union of Radio Science	GRAN CANARIA, SPAIN
2022 MAY	Harnack Haus GRB Workshop	BERLIN, GERMANY
2021 AUG	CMB-S4 Collaboration Meeting	CHICAGO, US
2021 JUL	UK NATIONAL ASTRONOMY MEETING	BATH, UK
2020 AUG	11 <sup>th</sup> CMB-S4 Workshop	CHICAGO, US
2019 SEP	Invited talk at KW25	ST PETERSBURG, RUSSIA
2012 JUN	Metals in Tuscany	TUSCANY, ITALY
2010 NOV	Poster Prize Talk at <i>GRBs 2010</i>	ANNAPOLIS, US

INVITED SEMINARS AND COLLOQUIA

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As Assistant Professor

2023 NOV	EDI Colloquium, SESE	ARIZONA STATE UNIVERSITY	TEMPE, USA
2023 NOV	Astronomy Colloquium, SESE	ARIZONA STATE UNIVERSITY	TEMPE, USA

As Postdoc

2020 APR	Astronomy Colloquium	UNIVERSITY OF FLORIDA	GAINESVILLE, USA
2020 FEB	Astronomy Colloquium	UNIVERSITY OF ALABAMA	TUSCALOOSA, USA
2020 FEB	Physics Colloquium	UNIVERSITY OF UTAH	SALT LAKE CITY, USA
2020 DEC	Colloquium	OSKAR KLEIN CENTER	STOCKHOLM, SWEDEN
2020 DEC	Colloquium	RADBOUD UNIVERSITY	NIJMEGEN, NL
2020 NOV	Astrophysics Seminar	U. OF SOUTHAMPTON	SOUTHAMPTON, UK
2020 NOV	Astrophysics Seminar	LJMU	LIVERPOOL, UK
2020 APR	Astrophysics Colloquium	U. OF MANCHESTER	MANCHESTER, UK
2020 FEB	Astrophysics Seminar	UNIVERSITY OF BRISTOL	BRISTOL, UK
2020 FEB	SPI-MAX Seminar	OXFORD UNIVERSITY	OXFORD, UK
2019 MAR	Astronomy Colloquium	SAN FRANCISCO STATE	CA, USA
2019 FEB	SPI-MAX Seminar	OXFORD UNIVERSITY	OXFORD, UK
2018 MAY	Astronomy Seminar	CARDIFF UNIVERSITY	CARDIFF, UK
2017 NOV	Astronomy Colloquium	WILLIAMS COLLEGE	MA, USA
2016 JUL	Special Seminar	U. OF AMSTERDAM	THE NETHERLANDS

SELECTED CONTRIBUTED TALKS

As Assistant Professor

GRB50: The Past, Present, and Future of Gamma-Ray Bursts, WARRENTON, USA Aug 2023

As Postdoc

Meeting for ALMA Young Astronomers (MAYA), ESO (ONLINE) Mar 2022

Intro to Machine Learning, UK National Astronomy Meeting, BATH, UK Jul 2021

LGBTQ+ STEMINAR, OXFORD UNIVERSITY (ONLINE) Jan 2021

Yamada Conference LXXI: Gamma-ray Bursts in the  
Gravitational Wave Era 2019, YOKOHAMA, JAPAN Oct 2019

ALMA2019: Science Results and Cross-Facility Synergies, CAGLIARI, ITALY Oct 2019

A Centenary of Astrophysical Jets, JODRELL BANK, UK Jul 2019

Astronomy Science Meeting, UNIVERSITY OF BATH, UK Nov 2018

Lunch Talk, UC BERKELEY Aug 2018

NRAO Postdoctoral Symposium, SOCORRO, NM Mar 2018

Lunch Talk, UC BERKELEY Apr 2017

NRAO Postdoctoral Symposium, CHARLOTTESVILLE, VA Mar 2017

The 8<sup>th</sup> Huntsville GRB Symposium, HUNTSVILLE, AL Oct 2016

Lunch Talk, UC BERKELEY Sep 2016

NRAO Postdoctoral Symposium, GREEN BANK, WV Mar 2016

Radio Futures 2020, CHICAGO, IL Dec 2015

Lunch Talk, UC BERKELEY Dec 2015

Dissertation Colloquium, CAMBRIDGE, MA [[youtu.be/uxMYRddtAjI](https://youtu.be/uxMYRddtAjI)] Apr 2015

As PhD Student

High-energy Seminar, COLUMBIA ASTROPHYSICS LABORATORY Oct 2014

High-energy Seminar, PRINCETON UNIVERSITY Oct 2014

Theory Lunch Talk, UNIVERSITY OF MARYLAND Oct 2014

RAL Seminar, UC BERKELEY Oct 2014

FLASH Talk, UC SANTA CRUZ Oct 2014

Tea Talk, CALTECH Sep 2014

Institute for Theory and Computation Seminar, HARVARD UNIVERSITY Apr 2014

Institute for Theory and Computation Luncheon, HARVARD UNIVERSITY Nov 2013

Huntsville in Nashville, Gamma-ray Bursts 2013, NASHVILLE, TN Apr 2013

Gamma-ray Bursts 2012, MUNICH, GERMANY May 2012

GRB Hosts at  $z \sim 3-5$ , COMO, ITALY May 2011

MEETINGS AND WORKSHOPS

Co-convenor, “Machine Learning & Visualization in Data-Intensive Era”  
European Astronomical Society, ANNUAL MEETING 2021

Co-convenor, of three special sessions and workshops:  
“Machine Learning Applications in Astrophysics”,  
“Introduction to Machine Learning”, and  
“Machine Learning Methods for Research in Astrophysics”  
UK National Astronomy Meeting, UNIVERSITY OF BATH 2021

Co-convenor, “Machine Learning Applications in Astrophysics”  
UK National Astronomy Meeting, UNIVERSITY OF LANCASTER 2019

Local Organizing Committee, UK National Astronomy Meeting 2020 2019 – 2021

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PEER REVIEW

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Review Panellist, CHANDRA X-RAY OBSERVATORY	2020 –
Review Panellist, e-MERLIN	2020 –
Review Panellist, FERMI GAMMA-RAY SPACE TELESCOPE	2020 –
Review Panellist, Devasthal Optical Telescope	2020 –
Expert Referee, UK SCIENCE AND TECHNOLOGY FACILITIES COUNCIL (STFC)	2019 –
Review Panellist, LIVERPOOL TELESCOPE	2019 –
Reviewer, GIANT METERWAVE RADIO TELESCOPE	2018 –
Referee:	
<i>Nature Astronomy</i>	2022 –
<i>Monthly Notices of the Royal Astronomical Society Letters</i>	2019 –
<i>Monthly Notices of the Royal Astronomical Society</i>	2019 –
<i>Science</i>	2018 –
<i>Astrophysical Journal Letters</i>	2017 –
<i>Astronomy and Astrophysics</i>	2017 –
<i>Astrophysical Journal</i>	2016 –

PROFESSIONAL SERVICE (<https://scholar.harvard.edu/laskar/diversity>)

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<i>Department Service, University of Utah</i>	
<u>Faculty Year 2</u>	
Chair, Astronomy Task Force	2023 – 24
Committee, Graduate Admissions	2023 – 24
Committee, LGBTQ+ Affairs	2023 – 24
Director, Undergraduate Skills Series in Physics and Astronomy	2023 Summer
<u>Faculty Year 1</u>	
Committee, Physics & Astronomy Faculty Search 2022	2022 – 23
Committee, Equity, Diversity & Inclusion	2022 – 23
Committee, Postdoctoral Affairs	2022 – 23
Committee, Colloquium	2022 – 23
LGBTQ+ Affairs (self-organized)	2022 – 23
<i>Department Service, University of Bath</i>	
Committee, <i>Kaleidoscope</i> , Staff LGBT+ group	2020 – 2021
Member, <a href="#">International Staff Reference Group</a>	2020 – 2021
<a href="#">Department Self-Assessment Team for Equity &amp; Inclusion</a>	2019 – 2021
<i>Department Service, UC Berkeley</i>	
Founder, <a href="#">AstroQ</a> , Mailing list for LGBTQ Astronomers	2016
<a href="#">Climate Advisor, Astronomy Department</a>	2015 – 18
<i>Other Professional Service</i>	
Member, Committee for Sexual-Orientation and Gender Minorities in Astronomy ( <a href="#">SGMA</a> ), AMERICAN ASTRONOMICAL SOCIETY	2017 – 19
Author & Editor (Emeritus), <i>Astrobites</i>	2011 – 2021

LEADERSHIP & PUBLIC OUTREACH

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<a href="#">Gravitational waves thrum through the cosmos</a> , @TheU	Jul 2023
Monthly Meeting, NEW HAMPSHIRE ASTRONOMICAL SOCIETY	Jul 2013
Founder, Astronomy Graduate Student Wiki, HARVARD UNIVERSITY	2010 – 14

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NON-ASTRONOMY OUTREACH

Founder, <a href="#">Tactus Ensemble</a> , CAMBRIDGE, MA	Apr 2014
Founder, <a href="#">Tactus SF</a> , SAN FRANCISCO, CA	Apr 2016

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OBSERVING EXPERIENCE

Radio: GMRT, VLA, ATCA, VLBA, CARMA, ALMA, NOEMA  
Optical: MMT, Magellan, Keck  
X-ray: *Chandra*

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PROFESSIONAL MEMBERSHIP

Full Member, AMERICAN ASTRONOMICAL SOCIETY	2023 –
Full Member, AMERICAN ASTRONOMICAL SOCIETY	2015 – 2018
Junior Member, AMERICAN ASTRONOMICAL SOCIETY	2011 – 2015

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COMPUTING & ASTROPHYSICAL DATA ANALYSIS EXPERTISE

Languages: Python, C++, R, IDL, Matlab, Mathematica, Maple, Octave, Unix

Software: **X-RAY**: X-spec, CIAO;  
**UV**: HEASoft; **INFRA-RED**: Mopex, Starfinder;  
**OPTICAL**: IRAF, DS9; **RADIO**: CASA, AIPS, MIRIAD

Telescope facilities and data reduction expertise: GMRT, VLA, VLBA, ATCA, WSRT, SMA, CARMA, ALMA, MMT, Magellan, LCO-GT, Lick, Keck, Gemini, VLT, *Spitzer*, *HST*, *Swift*, *Chandra*, *XMM-Newton*

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LANGUAGES

English, Hindi, German, Dutch, Assamese, Sanskrit, Bengali, Urdu, Tamil, Punjabi