Dr. Lauren Rhodes (she/her)

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Employment

Trottier Space Institute Postdoctoral Research Fellow
Sept 2024-Present — Trottier Space Institute, McGill University, Canada

STFC (Science Technology and Facilities Council) Post-doctoral Research Associate
Sept 2022-Aug 2024 — Department of Physics, University of Oxford, UK

Graduate Student
Oct 2018-June 2022 — Department of Physics, University of Oxford, UK & Max Planck Institute for Radio Astronomy, Germany

SURE (Sheffield Undergraduate Research Scheme) Research Student
June-Aug 2016 — University of Sheffield, UK

Education

Oct 2018 – July 2022 — **DPhil** Astrophysics — St Catherine's College, University of Oxford, UK
Thesis title: The astrophysics of relativistic radio transients
Supervisors: Prof. R. Fender and Prof. M. Kramer.

Sept 2014 – July 2018 — **MPhys** Physics and Astrophysics — University of Sheffield, UK
Thesis title: Evaluating the effectiveness of the CO[5-4] line as a tracer for instantaneous star formation rate
Supervisors: Dr. J. Mullaney

Service to the Community

May 2025 – Aug 2025 — Summer internship research program co-organiser — Department of Physics, McGill University
Vetted and ranked applicants for acceptance into the Trotter Space Institute (TSI) summer internship program. Organised and co-ran weekly 'research 101' seminars for the accepted TSI and physics undergraduate interns.

Jan 2025 – present — Transient Journal Club Co-organisor — TSI, McGill University

Jan 2024 – present — Science reviewer for NRAO/GBO — Oxford Astrophysics, University of Oxford
Part of the *gravitational wave and energetic transients* science panel

Sep 2023 – present — Journal Referee
Nature Astronomy; Astronomy & Astrophysics

Sept 2023 – Sept 2024 — Post-doctoral representative for astrophysics — Oxford Astrophysics, University of Oxford
Attend departmental meetings and communication relevant information back to the post-doctoral community. Organise social events. Implement changes within the department that benefit the post-doctoral researchers.

Oct 2022 – Sept 2024 — Seminar Organiser — Oxford Astrophysics, University of Oxford
Coordinating the organisation and invitation of speakers for the 'SPI-MAX' (Stars Planets Instrumentation Methods Accretion & eXplosions) seminar series.

Nov 2022 – present — Mentor — Supernova foundation
Part of an international mentor/mentee program to aid in resolving the international gender gap in STEM.

Dec 2022 – present | Undergraduate Interviews | Exeter College, University of Oxford

Assisted Professor Cotter in interviewing physics undergraduates for admission into Exeter College.

Teaching Experience

Jan 2025 – April 2025 | High energy astrophysics graduate course lecturer | McGill University

Taught lectures on gamma-ray bursts and gravitational waves as part of a physics graduate level course. Set and marked problems sets associated with both lectures. Students also wrote mock observing proposals as part of their coursework with I helped assess.

Oct 2020 – June 2021 | C1 Astrophysics | University of Oxford

Faculty teaching delivering small group tutorials covering the entirety of the final year, Masters level astrophysics option. The course covered radiative processes, high-energy astrophysics, cosmology, stellar structure and evolution, and galaxies.

Supervisory Experience

Primary supervisor:

May – Aug 2025 | Dinah Ibrahim and Nisrine Sqalli | McGill University, Canada

Studying the radio counterparts of gamma-ray bursts with the AMI–LA telescope

June – Aug 2024 | Isabel Stephens | University of Oxford, UK

Does Scorpius-X1 produce fast jets?

Secondary supervisor:

June – Aug 2024 | Alex Scott | University of Oxford, UK

Extreme jets from black holes and neutron stars

Publications

Refereed (First author: 10, Co-authored: 35, h-index: 19):

MNRAS: Monthly Notices of the Royal Astronomical Society
A&A: Astronomy & Astrophysics
ApJ(L): Astrophysical Journal (Letters)
* indicates student led work
First author:

- **Long term optical variations in Swift J1858.6–0814: comparisons to radio properties** **Rhodes L.**, Russell D., Saikia P., Alabarta K., van den Eijnden J., Knight A. H., Baglio M. C. , Lewis F., 2025, MNRAS, 536, 3421
- **Rocking the BOAT: the ups and downs of the radio light curve of GRB 221009A** **Rhodes L.** van der Horst A.J., Bright J. S., Leung J. K., Anderson G. E., Fender R., Agüí Fernandez J. F., Bremer M., Chandra P., Dobie D., Farah W., Giarratana S., Gourdji K., Green D. A., Lenc E., Michałowski M. J., Murphy T., Nayana A. J., Pollak A. W., Rowlinson A., Schussler F., Siemion A., Starling R. L. C., Scott P., Thöne C. C., Titterington D., de Ugarte Postigo A., 2024, MNRAS, 533, 4435
- **Discovery of the optical and radio counterpart to the fast X-ray transient EP240315a** Gillanders J. H. & **Rhodes L.** & Srivastav S. (joint first authors), and Carotenuto F. and Bright J. Huber M. E. Stevance H. F. Smartt S. J. Chambers K. C. Chen T. -W. Fender R. Andersson A. Cooper A. J. Jonker P. G. Cowie F. J. deBoer T. Erasmus N. Fulton M. D. Gao H. Herman J. Lin C. -C. Lowe T. Magnier E. A. Miao H. -Y. Minguez P. Moore T. Ngeow C. -C. Nicholl M. Pan Y. -C. Pignata G. Rest A. Sheng X. Smith I. A. Smith K. W. Tonry J. L. Wainscoat R. J. Weston J. Yang S. Young D. R., 2024, ApJL, 969, L14.

- **Precise Measurements of Self-absorbed Rising Reverse Shock Emission from Gamma-ray Burst 221009A**
  Bright J. S. & **Rhodes L.** (joint first authors), Farah W, Fender R., van der Horst A., Leung J.K., Williams D.R.A., Anderson G., Atri P., DeBoer D.R., Giarratana S., Green D.A., Heywood I., Lenc E., Murphy T., Pollak A.W., Premnath P.H., Scott P.F., Sheikh S.Z., Siemion A., Titterington D.J., 2023, Nature Astronomy, 7, 986

- **FRB 20121102A: images of the bursts and the varying radio counterpart**
  Rhodes L., Caleb M., Stappers B. W., Andersson A, Bezuidenhout M.C., Driessen L. N., Heywood I., Woudt P. A., 2023, MNRAS, 525, 3, 3626

- **Day-timescale variability in the radio light curve of the Tidal Disruption Event AT2022cmc: confirmation of a highly relativistic outflow**
  Rhodes L., Bright J. S., Fender R., Green D. G., Horesh A., Mooley K., Pasham D., Sfaradi I., Smartt S., Titterington D. J., van der Horst A. and Williams D. R. A., 2023, MNRAS, 521, 389

- **Two component jet observed in the afterglow of the dark very high energy GRB 201216C**
  Rhodes L., van der Horst A. J., Fender R., Aguilera-Dena D. R., Bright J. S., Vergani S. and Williams D. R. A., 2022, MNRAS, 513, 2, 1895

- **Long term radio monitoring of neutron star X-ray binary *Swift* J1858.8-0814**
  Rhodes L., Fender R. P., Motta S., van den Eijnden J., Williams D. R. A., Bright J. and Sivakoff G. R., 2022, MNRAS, 513, 2, 2708

- **An early peak in the radio light curve of short-duration Gamma-Ray Burst 200826A**
  Rhodes L., Fender R., Williams D. R. A. and Mooley K, 2021, MNRAS, 503, 2966

- **Radio afterglows of very high-energy gamma-ray bursts 190829A and 180720B**
  Rhodes L., van der Horst A. J., Fender R., Monageng I. M., Anderson G. E., Antoniadis J., Bietenholz M. F., Böttcher M., Bright J. S., Green D. A., Kouveliotou C., Kramer M., Motta S. E., Wijers R. A. M. J., Williams D. R. A. and Woudt P. A., 2020, MNRAS, 496, 3326

Co-authored

- **The Double Tidal Disruption Event AT 2022dbl Implies That at Least Some "Standard' Optical TDEs are Partial Disruptions**
  Makrygianni L., ... **Rhodes L.** et al. 2025, ApJ, *in press*.

- **Blast waves and reverse shocks: from ultra-relativistic GRBs to moderately relativistic X-ray binaries**
  Matthews J., Cooper A., **Rhodes L.** et al. 2025, MNRAS, 539, 2665.

- **The Long-lived Broadband Afterglow of Short Gamma-Ray Burst 231117A and the Growing Radio-Detected Short GRB Population**
  Schroeder G., ... **Rhodes L.** et al., 2025, ApJ, 982, 42.

- **Constraints on Relativistic Jets from the Fast X-ray Transient 210423 using Prompt Radio Follow-Up Observations**
  Ibrahimzade D., ... **Rhodes L.** et al., 2025, ApJ, 980, 92

- **Multi-Wavelength Analysis of AT 2023sva: a Luminous Orphan Afterglow With Evidence for a Structured Jet**
  Srinivasaragavan G.P. ... *Rhodes L*, et al., 2025, MNRAS, 538, 351.

- **The observed phase space of mass-loss history from massive stars based on radio observations of a large supernova sample**
  Sfaradi I., ... **Rhodes L.** et al. 2025, ApJ, 979, 189

- **Discovery of the optical counterpart of the fast X-ray transient EP240414a**
  Srivastav S, Chen J., Gillanders J., **Rhodes L.** et al. 2025, ApJL, 978, L21

- **The Radio Counterpart to the Fast X-ray Transient EP240414a**
  Bright J.S., ... **Rhodes L.**, et al. 2025, ApJ, 981, 48

- **Simultaneous Optical and X-ray Detection of a Thermonuclear Burst in the 2024 Outburst of EXO 0748-676**
  Knight A., **Rhodes L.** et al. 2025, MNRAS, 536, L26.
- **Late-time radio brightening and emergence of a radio jet in the changing-look AGN 1ES 1927+654**
  Meyer E.T., ... **Rhodes L.** et al. 2025, ApJL, 979, L2
- **The early radio afterglow of short GRB 230217A**
  Anderson G., ... **Rhodes L.** et al 2024, ApJL, 975, L13.
- **An IXPE-led X-Ray Spectropolarimetric Campaign on the Soft State of Cygnus X-1: X-Ray Polarimetric Evidence for Strong Gravitational Lensing**
  Steiner J. F., ... **Rhodes L.** et al., 2024, ApJL, 969, L30
- **The expansion of the GRB 221009A afterglow**
  Giarratana S., ... **Rhodes L.** et al. A&A, 690, A74
- **A Radio Flare in the Long-Lived Afterglow of the Distant Short GRB 210726A: Energy Injection or a Reverse Shock from Shell?**
  Schroeder G., **Rhodes L.** et al. 2024, ApJ, 970, 2, 139
- **Ultrasoft state of microquasar Cygnus X-3: X-ray polarimetry reveals the geometry of the astronomical puzzle**
  Veledina A., ... **Rhodes L** et al., 2024, A&A, 688, L27
- **Testing EMRI models for Quasi-Periodic Eruptions with the 3-year NICER campaign of eRO-QPE1**
  Chakraborty J., ... **Rhodes L.** et al. 2024, *ApJ*, 965, 12
- **JWST detection of heavy neutron-capture elements in a compact object merger**
  Levan A., ... **Rhodes L.** et al. 2024, Nature, 626, 8000, p.737-741
- **The dense and non-homogeneous circumstellar medium revealed in radio wavelengths around the Type Ib SN 2019oys**
  Sfaradi I., ... **Rhodes L.** et al. 2024, A&A 686, A129, 14
- **An off-axis relativistic jet seen in the long-lasting delayed radio flare of the TDE AT2018hyz** Sfaradi I., ... **Rhodes L.** et al. MNRAS, 527, 3, 7672
- **SN 2022jli: A Type Ic Supernova with Periodic Modulation of Its Light Curve and an Unusually Long Rise**
  Moore T., ... **Rhodes L.** et al, 2023, ApJL, 956, L31
- **Commensal Transient Searches in Eight Short Gamma Ray Burst Fields**
  Chastain S., ... **Rhodes L.** et al. 2023, MNRAS, 526, 2, 1888
- **AT2022aedm and a new class of luminous, fast-cooling transients in elliptical galaxies**
  Nicholl M., ... **Rhodes L.** et al. 2023, ApJ, 954, L28
- **Bursts from Space: MeerKAT - The first citizen science project dedicated to commensal radio transients**
  Anderson A., ... **Rhodes L.** et al, 2023, MNRAS, 523, 2, 2219
- **The False Widow Link Between Neutron Star X-ray Binaries and Spider Pulsars**
  Knight A., ... **Rhodes L.** et al, 2023, MNRAS, 520, 3, 3416
- **The optical light curve of GRB 221009A: the afterglow and detection of the emerging supernova SN 2022xiw**
  Fulton M., Smartt S., **Rhodes L.,** et al, 2023, ApJL, 946, 1, L22, 12 pp
- **The Birth of a Relativistic Jet Following the Disruption of a Star by a Cosmological Black Hole**
  Pasham D., ... **Rhodes L.** et al, 2023, Nature Astronomy, 7, 88
- **Serendipitous discovery of radio flaring behaviour from a nearby M dwarf with MeerKAT**
  Andersson A., ... **Rhodes L**, et al, 2022, MNRAS, 513, 3

- **GRB 201015A: VLBI observations of the shortest Gamma-Ray Burst ever detected at Very High Energy**
  Giarratana S., **Rhodes L.**, et al, 2022, A&A, 664, A36
- **A persistent ultraviolet outflow from an accreting neutron star binary transient**
  Castro Segura N., .. **Rhodes L.**, et al, 2022, Nature, 603, 52
- **Radio and X-ray observations of the luminous Fast Blue Optical Transient AT2020xnd**
  Bright J. S., ... **Rhodes L.**, et al, 2022, ApJ, 926, 2.
- **An analysis of the time-frequency structure of several bursts from FRB 121102 detected with MeerKAT**
  Platts E., ... **Rhodes L**. et al, 2021, MNRAS, 505, 3041.
- **Observations of a radio-bright, X-ray obscured GRS 1915+105**
  Motta S. E., ... **Rhodes L.**, et al, 2021, MNRAS, 503, 152
- **Simultaneous multi-telescope observations of FRB 121102**
  Caleb M., ... **Rhodes L.**, et al, 2020, MNRAS, 496, 4565
- **The 2018 outburst of BHXB H1743-322 as seen with MeerKAT**
  Williams D. R. A. ... **Rhodes L.**, et al, 2020, MNRAS, 491, L29
- **Full orbital solution for the binary system in the northern Galactic disc microlensing event Gaia16aye**
  Wyrzykowski Ł., ... **Rhodes L.**, et al., 2020, A&A, 633, A98
- **Gaia16apd - a link between fast and slowly declining type I superluminous supernovae**
  Kangas T., ... **Rhodes L.**, et al, 2017, MNRAS, 469, 1246

White papers & book chapters:

- **Multidisciplinary Science in the Multi-diagnostic era of astrophysics (White paper)**
  Burns E., Fryer C.L., ... **Rhodes L.** et al arxiv:2502.03577

Submitted:

- **Thermal electrons in the radio afterglow of jetted tidal disruption event ZTF22aaajecp/AT2022cmc**
  Rhodes L., et al *submitted to ApJ*
- **Evidence for an intrinsic luminosity-decay correlation in GRB radio afterglows**
  Shilling S., ... **Rhodes L.** et al. *submitted to MNRAS*
- **A multi-wavelength view of the outflowing short-period X-ray binary UW CrB**
  Fijma S., ... **Rhodes L.** et al. *submitted to MNRAS*
- **Puzzling two-stage size evolution of an ultraluminous gamma-ray burst jet**
  Geng J.J. ... **Rhodes L**, et al **submitted to Nature Astronomy**
- **Radio observations of the ultra-long GRB 220627A reveal a hot cocoon supporting the blue supergiant progenitor scenario**
  Leung J. ... **Rhodes L**, et al **submitted to ApJ**
- **Unprecedentedly bright X-ray flaring in Cygnus X-1 observed by INTEGRAL**
  Thalhammer P. ... **Rhodes L**, et al **submitted to A&A**
- **Variability of X-ray polarization of Cyg X-1**
  Kravtsov V. ... **Rhodes L**, et al **submitted to A&A**

Additionally: a number of Astronomer's Telegrams, General Coordinate Network (GCN) notices and Transient Name Server (TNS) reports to disseminate the results of observations to the wider community.

Conferences, presentations and seminars

Invited Seminars/Colloquia/Meetings 2025	5TH PHILIP WETTON WORKSHOP, Oxford, UK
	University College Dublin, Ireland
	Anton Pannekoek Institute for Astronomy, University of Amsterdam, Netherlands
	Max Planck Institute für Radioastronomie, Germany
Conference Presentations 2025	The Dynamic Radio Sky, Sydney Australia
	Celebrating 20 years of Swift Discoveries, Florence, Italy
Invited Seminars/Colloquia/Meetings 2024	Université de Montréal, Canada
	NASA Goddard Space Flight Centre, USA
	A thinkshop on fast-evolving extragalactic transients , Bormio, Italy
	Cavendish Astrophysics, University of Cambridge, UK
Conference Presentations 2024	TDAMM Meeting, Baton Rouge, USA (invited)
	NAM Hull 2024 (invited)
	EAS Padova 2024
	COSPAR 2024, South Korea (Invited - but declined)
Conference Posters 2024	Hotwiring the Transient Universe, Toronto
Invited Seminars/Colloquia/eetings 2023	INAF-IRA, Italy
	INAF-Brera Astronomical Observatory, Italy
	Columbia University, USA
	VAST Telecon, Australia (zoom)
	OzGrav Seminar, Australia (zoom)
	Niels Bohr Institute, Denmark
	Max Planck Institute for Extraterrestrial Physics, Munich, Germany
	Erlangen Centre for Astroparticle Physics, Germany
	University of Manchester, UK
	Overcoming disconnects in understanding of accreting black holes, Lorentz Centre, Leiden
Conference Presentations 2023	GRB50 conference, US
	European Astronomical Society Annual Meeting 2023, Poland
	Timing and Imaging of compact sources with SKA pathfinders, Greece
Invited Seminars 2022	Foundation for Research and Technology, Crete
	University of Oxford, UK
	University of College London, UK
Conferences Presentations 2022	VHE GRB Workshop 2022, Germany (Invited)
	National Astronomy Meeting 2022, UK
Conferences Presentations 2021	National Astronomy Meeting, Online
	IAU Symposium 363, Online
	Annual Meeting of the German Astronomical Society, Online
SOC	Inaugural University of Oxford Physics Post-doc Conference, 2024 (Chair)
	Parallel sessions, National Astronomy Meeting 2024
	Parallel sessions, National Astronomy Meeting 2023
	Parallel sessions National Astronomy Meeting 2022 (Chair)

LOC

FRB 2025
UK Neutron Star Conference 2023

ThunderKAT Collaboration Meetings

Presentations and updates between 2018 -2023

Observing Experience

Feb 2023 – Sept 2024

Telescope Scheduler MRAO, University of Cambridge

Primary scheduler for the Arcminute Microkelvin Imager – Large Array at MRAO (Mullard Radio Astronomical Observatory) Cambridge, UK. Responsible for ensuring that the telescope is observing the most appropriate targets at any given time for a given science goal and ensuring the telescope is running efficiently. Also responsible for selecting new transients to observe that align with the Oxford transient research group's science goals and subsequently perform data reduction and interpretation of the observations.

PI for over 1000 hours of telescope time

Open Time Proposals

PI :
ATCA: C3640 "*Searching for a break in the late time radio light curve of GRB 221009A*"

eMERLIN: CY9005, CY10002 (with long term status) and CY12003 (with long term status); CY14002 (with long term status); CY16204 (with long term status) "*High-resolution observations of short GRBs beyond the LIGO horizon*"; CY13003 and CY14001 "*Studying the radio properties of the emerging class of VHE GRBs*"; CY15206 "*Late time observations of GRB 221009A: the brightest radio afterglow to date*"; CY16004, CY18002 "*Continued eMERLIN monitoring of ZTF22aaajecp/AT2022cmc: the first jetted tidal disruption event in a decade*"
GMRT: 47_073 "

MeerKAT: MKT-20185 and MKT-22097 "*Searching for off-axis radio emission from binary neutron star mergers using optically detected kilonovae*" MKT-23101 "*MeerKAT monitoring of ZTF22aaajecp/AT2022cmc: the first jetted tidal disruption event in a decade*"; MKT-24208 "*Searching for a break in the late time radio light curve of GRB 221009A*"; MKT-24207 "*Continued MeerKAT monitoring of ZTF22aaajecp/AT2022cmc: exploring the differences between thermal and non-thermal electron populations*"

NOEMA: S22BT " *NOEMA Observations of the ZTF22aaajecp/AT2022cmc: the first relativistic tidal disruption event in a decade*"; W22CZ "*Continued NOEMA monitoring of AT2022cmc: the first relativistic tidal disruption event in a decade*"

SMA: 2022B-S001, 2023A-S007 "*Searching for early-time emission from gamma-ray bursts with the SMA*"

VLA: 21B-170 "*Studying the radio properties of the emerging class of VHE GRBs*"; VLA/25A-015 "*Searching for a break in the late time radio light curve of GRB 221009A*"; VLA/25A-066 "*Finding the radio counterpart to a rare long GRB binary neutron star merger*

Co-I:
ATCA: C3542 (for three years) "*A Panoptic Radio View of Long Gamma-ray Bursts*"; C3204 "ATCA rapid-response triggering on Swift detected short gamma-ray bursts: Exploring the link with gravitational wave events"

GBT: GBT25A-273 "*GBT Observations of a Candidate Transitional Millisecond Pulsar*"

LBA: V660 "*The expanding afterglow of GRB 221009A*"

MeerKAT: MKT-22078 "*Constraining the properties of Very High Energy detected GRBs with MeerKAT*", MKT-23011 "*Relativistic Jets from Stellar Mass Black Holes and Neutron Stars*", MKT-23022 "*Long-term monitoring of the compact persistent counterpart to the repeating FRB 20121102A*", MKT-23177 "*Probing the Astrophysics of Neutron Star Mergers with Radio Afterglows*", MKT-23128 "*Exploring the New Phenomenon of Delayed Radio Flares in Tidal Disruption Events*"

VLA: VLA/24B-183 "*Chasing Gamma Ray Burst radio afterglows in the early Universe*"; VLA/24B-347 "*A comprehensive systematic exploration of the phase space of TDE outflows*"; VLA/25A-254 "*Studying Relativistic Shocks with Fast VLA Follow-Up of Gamma-Ray Bursts*"; VLA/25A-078 "*Probing the slow and fast jets in the blac hole X-ray binary GRS 1915+105*"

Director's Discretionary Time

PI:
eMERLIN: DD8004 "*Observations of sGRB 190326A*"; DD9006 "*High-resolution radio observations of a candidate neutron star merger event*"; DD10003 "*Very High Energy Gamma-ray Burst 201015A*"; DD10010 "*Very High Energy Gamma-ray Burst 201216C*"; DD11001 "*Further radio follow up Very High Energy Gamma Ray Burst 201216C at 5 GHz*"; DD12002 "*Late time radio follow up of short GRB 210726A at 5GHz*"; RRT13002 "*eMERLIN Observations of the ZTF22aaajecp/AT2022cmc: the most luminous gamma-ray burst to date or jetted tidal disruption event?*"; RR14001 "*5GHz observations of GRB 221009A*; DD17003 "*e-MERLIN observations of new Fast X-ray Transient EP240315a*; DD18001 "*SN2022jli: the birth of an X-ray binary?*".

GTC: GTC2019-121 "*The mysterious, possible radio counterpart to a short GRB*"

LOFAR: DDT20_003 "*Catching the BOAT at low frequencies: the first explosive transient detected by LOFAR*"

MeerKAT: DDT-20210107-LR-01 "*Studying the radio properties of the emerging class of VHE GRBs with GRB 201216C*"; DDT-20210908-RA-01 "*MeerKAT follow-up of a QPE source*"; DDT-20230313-LR-01 "*DDT observations of GRB 230307A: a bright southern hemisphere GRB*"; DDT-20231124-SA-01 "*MeerKAT observations of the new bright short GRB 231117A*; DDT-20240228-LR-01 "*MeerKAT observations of GRB 240205B*"

VLA: 20B-456 "*Studying the radio properties of the emerging class of VHE GRBs with GRB 201216C*"

Co-I:
eMERLIN: DD14001 "*Search for a radio counterpart to SN 2022jli*", DD16001 "*Continued monitoring of GRS 1915+105 as it undergoes repeated massive radio flares*"

EVN: RG013 "*Studying the structure and the dynamics of the outstanding GRB 221009A*"

Chandra: 402356 "*The Wide-Angle Outflow of SGRB 210726A*"; 23708837 "The first relativistic tidal disruption flare in a decade"

HST: GO/DD 15984 "*Time-resolved UV spectroscopy of the accretion disk and wind in a super-Eddington black-hole X-ray transient*"

MeerKAT: DDT-20220705-SG-01 "*Searching for the afterglow of the lensed GRB 220627A*"

Parkes: "*Assessing the Feasibility of Detecting Radio Pulsations from EXO 0748–676*"

VLA: 21A-422 "*Searching for Radio Emission from a Fast X-ray Transient*", VLA/24A-455 "*Measuring the Spectrum of the First Radio Loud Fast X-ray Transient*", VLA/24A-474 "*The changing-angle jets in GRS 1915+105*"

VLBA: 22B-302 "*Resolving the afterglow of GRB 221009A*"

Scheduling

Current primary scheduler for the AMI–LA telescope. Have scheduled observations with MeerKAT and the Karl G. Jansky Very Large Array. Trained to observe with the Australia Telescope Compact Array and Effelsberg 100m telescopes. Experience reducing data for all aforementioned facilities as well as NOEMA. Previous experience in scheduling optical transient observations on the pt5m in La Palma.

Schools

Jan 2022	SMA Interferometry School	Online
July 2020	17th Synthesis Imaging Workshop	Online
Oct 2019	European Radio Interferometry School	Gothenburg, Sweden

Outreach

Feb 2025	TSI & Physics Outreach Public Talk Speaker	McGill University, Montreal, Canada

Jan 2025	Canadian Students for the Exploration and Development of Space Conference Keynote Speaker	Montreal, Canada
Oct 2024	Astronomy of Tap Speaker	Montreal, Canada
Nov 2023 & Mar 2024	Stargazing evening Outreach volunteer	Bicester, Oxfordshire, UK
Feb 2024	Minerva's Virtual Academy Speaker	Oxford, UK
Nov 2023	Outthinkers talks evening Speaker	Pride in STEM, UK
Sept 2023	Oxford Open Doors festival Oxford Astrophysics volunteer	University of Oxford, UK
July 2023	Bluedot Festival Zooniverse stand volunteer	Jodrell Bank, Manchester, UK
May 2023	'I'm a Scientist' outreach event Online Q&A session with school students.	Online/ University of Oxford, UK
April 2023	Invited talk: The most powerful explosions in the universe. Outreach seminar to the *Friends of the RAS*.	Royal Astronomical Society, UK
March 2023 & 2024	'Marie Curious' outreach event Annual departmental event for school girls ages 12-14.	University of Oxford, UK
February 2023	Invited outreach talk	First Light Fusion, Oxford, UK
Jan 2023	Into the Cosmos Department-wide outreach day. General volunteer.	University of Oxford, UK
June 2019	Stargazing Live Department-wide outreach day. Organised and ran planetarium talks.	University of Oxford, UK

Collaborations

Max Planck Galactic Plane S-band Survey
Lead of the image-plane transient working group.

LORAX
GRB follow-up lead for a proposed large program on LOFAR 2.0.

ThunderKAT & X-KAT
Using the MeerKAT radio telescope to study both galactic and extragalactic transients associated with compact objects

ATLAS
Pan-sky survey made of four optical telescopes whose goal is to search for near-Earth objects. The same data can be used to search for static transients, primarily supernovae .

JAGWAR
Using Jansky VLA and MeerKAT to search for radio emission associated with Gravitational Wave bursts.

Pan-radio GRBs
Using ATCA to perform both prompt and long-term follow-up of gamma-ray bursts over the next years.

Transient working groups for Legacy Survey of Space and Time, ALMA2024 & Square Kilometre Array (SKA)

Media coverage

July 2024 — The Astrophiz Podcast

June 2021 – Present — Oxford Physics
First detection of heavy element from star merger
Warm winds witnessed in neutron star first
Study of 'Brightest of All Time' provides unprecedented understanding
Oxford astronomers in front-row view of exceptional cosmic explosion.

August 2023 — Astrobites
The Fast and the Radio Luminous: FRB 20121102A by Sonja Panjkov

August 2023 — National Geographic
The brightest blast ever seen in space continues to surprise scientists by Liz Kruesi

April 2022 — Phys.org
Astronomers inspect outburst of X-ray binary Swift J1858.6–0814 by Tomasz Nowakowsk

Funding Awards

March 2024 — The Astor Fund — Oxford, UK
Funding visits to collaborators in the USA. (£1500)

October 2023 — The Lockey Fund — Oxford, UK
Designed to fund attendance to 'open' conferences/workshops or meetings. (£1000)

August 2023 — AHEAD2020 — Bologna, Italy
Set within the European Horizon 2020 program, the AHEAD2020 program is designed to advance international collaboration within the field of high-energy astrophysics. (€2300)

February 2023 — OPTICON-RadioNet Pilot travel grant — Oxford, UK
Funding visits to reduce NOEMA data. (£200)

References

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