

Personal Information

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Research Interests

Jets and disk winds from X-ray binaries
The impact of outflows on binary evolution and the interstellar medium
Multi-wavelength observations of X-ray binaries
Evolutionary stages of X-ray binaries
Low-luminosity accretion onto neutron stars and stellar-mass black holes
Thermonuclear X-ray bursts from accreting neutron stars
Probing ultra-dense matter through neutron stars

Research Positions

2016–present	Research group leader, Vidi laureate University of Amsterdam – Anton Pannekoek Institute for Astronomy
2014–2016	Marie Curie research fellow University of Cambridge – Institute of Astronomy
2011–2014	Hubble research fellow University of Michigan – Department of Astronomy
2010–2011	Postdoctoral researcher University of Amsterdam – Anton Pannekoek Institute for Astronomy

Education

2006–2010	PhD in Astronomy University of Amsterdam – Anton Pannekoek Institute for Astronomy Thesis title: <i>Exploring sub-luminous X-ray binaries</i>
2004–2006	Master degree in Astronomy, <i>cum laude</i> University of Amsterdam – Anton Pannekoek Institute for Astronomy

Grants and Fellowships

2020	XS grant from NWO – 50 000 euro
2015	Vidi grant from NWO (5 years) – 800 000 euro
2015	St John’s College Research Fellowship (5 years) in Cambridge, UK
2014	Marie Skłodowska-Curie fellowship from the EC (2 years) – 280 000 euro
2011–2014	Observing grants from Hubble, Chandra, XMM-Newton, Swift – 605 000 euro
2011	Hubble fellowship from NASA (3 years) – 340 000 euro

Scientific Networks and Academy Memberships

2018–present	Member of the International Astronomical Union (IAU)
2018–present	Leader of the MeerLICHT working group for accreting neutron stars
2017–present	Joint Institute for Nuclear Astrophysics, Center for the Evolution of the Elements International partner, network for studying nuclear elements in the universe

Management Responsibilities

2017–present	Management Committee of the European neutron-star network PHAROS
2016–present	Research group leader at the University of Amsterdam
2009–present	Leader of the Swift Galactic center X-ray monitoring team of the Swift satellite
2007–2009	Secretary of the Dutch national committee of astronomy education (LOCNOC)
2003–2004	Education Committee (OC) of the Physics program at VU University
2002–2003	Faculty Student Council (FSR) of Exact Sciences at VU University

Overview of Research Output

Publication Record Summary

First author refereed publications	33 (10 Letters, 3 reviews)
First author non-refereed publications	52
Co-author refereed publications	111 (20 Letters, 2 reviews)
Co-author non-refereed publications	108

Talk Record Summary

Invited talks international conferences	28
Colloquia and seminars	26
Contributed talks conferences	19

Telescope Time Acquisition Record Summary

PI accepted observing proposals	177	
Co-I accepted observing proposals	135	
Facilities used as PI:	X-ray	Chandra, XMM-Newton, NuSTAR, Swift, RXTE
	UV	Hubble Space Telescope
	Optical/nIR	VLT, SMARTS, INT, Gemini, Magellan
	Radio	VLA, ATCA

Organization of Scientific Meetings Summary

SOC chair, LOC	<i>From Winds to Jets: The Role of Outflows in X-ray Binaries</i> Held in Amsterdam, July 2019. International workshop, 65 participants
SOC chair, LOC	<i>ICONS: Investigating the Crust of Neutron Stars</i> Held in Amsterdam, April 2019. International workshop, 40 participants
SOC, LOC, treasurer	<i>A decade of accreting millisecond X-ray pulsars</i> Held in Amsterdam, April 2008. International workshop, 60 participants
SOC (19)	<i>A total of 19 other</i> international conferences and workshops, see CV Appendix Between 2009 and 2020, various countries, 50–200 participants each
LOC (2)	<i>A total of 2 other</i> international conferences, see CV Appendix Held in 2009 and 2011 in the Netherlands, 200 participants each

Editorial and Panel Work

Journal referee	Science, Astrophysical Journal (ApJ), Astronomy & Astrophysics (A&A) Monthly Notices of the Royal Astronomical Society (MNRAS), New Astronomy
Co-editor	<i>A decade of accreting millisecond X-ray pulsars</i> (2008) American Institute of Physics Journals Conference Proceedings 1068
Fellowship panels	NASA Earth Space and Science Fellowship (NESSF, 2013) NASA Hubble Fellowship Program (NHFP, 2018)
Time allocation panels	Gemini (2013), Chandra (2014, 2018), ING (2017, 2018), AstroSAT (2017, 2018), ESO (2018), Chinese TAP (2018), INTEGRAL (2019, 2020)

Selection of Press

2020	AAS research highlight <i>Jet-setting in the infrared</i>
2019	Dutch radio interview <i>Met het oog op morgen: Onmogelijk zwart gat ontdekt</i>
2018	NRAO press release <i>VLA discovers jet coming from wrong kind of star</i>
2017	NOVA press release <i>High-magnetic field neutron stars can launch jets</i>
2017	ESA/NASA press release <i>Mind the Gap: Rapid Burster behaviour explained</i>
2014	NASA press release <i>NASA's Swift catches X-ray action at Milky Way's center</i>
2014	Press conference American Astronomical Society (AAS), Washington DC, USA <i>On the watch for a revival of the Milky Way's supermassive black hole</i>
2014	BBC news interview <i>Black hole's Big Meal could spark fireworks</i>
2014	High-energy astrophysics picture of the week <i>Action at the Galactic center</i>
2013	Sky & Telescope article <i>A cosmic sleight of hand</i>
2012	German radio interview <i>Snacks für das Schwarze Loch</i>
2010	NASA press release <i>Eclipsing pulsar promises clues to crushed matter</i>

Selection of Outreach

2019–2020	<i>Sounds of Interstellar Space</i> with the jazz combo TRIFID. Different locations in NL Concert and lecture series, http://www.soundsofinterstellarspace.nl
2019	<i>Enrichment project</i> for girls in 2nd grade, Cygnus gymnasium, Amsterdam, NL
2018	<i>Astronomy Olympiad</i> lecturer, highschool students. University of Amsterdam, NL
2017	<i>Public evening lectures</i> . Anton Pannekoek Institute, University of Amsterdam, NL
2016	<i>Fellows pre-dinner lecture series</i> . St John's College. Cambridge, UK
2016	<i>STEM Subject Days</i> . St John's College. Cambridge, UK Outreach events for year-12 students (aged 15–18) from state school backgrounds
2016	<i>Public evening lectures</i> . Institute of Astronomy, University of Cambridge, UK
2015	<i>Interviews</i> with girls in secondary school (5th grade). Different locations in NL
2012–2013	<i>FEMMES (Females Excelling More in Math, Engineering and Science)</i> . Activities for girls in secondary schools from underserved areas. Ann Arbor, USA
2008–2011	<i>Interviews/lectures for scholars in secondary school</i> . Amsterdam, NL

Overview of Teaching Output

Supervision of Postdoc Projects

2019–present	Dr. A. Parikh, University of Amsterdam Primary supervisor, funded by my Vidi research grant
2016–2019	Dr. J. Hernández Santisteban, University of Amsterdam Primary supervisor, funded by my Vidi research grant Now postdoctoral fellow at the University of St. Andrews, Schotland

Supervision of PhD Projects

2019	Mr. K. Alizai, University of Amsterdam. Promotor Chenevez. Graduating in 2020 Exchange visit (4 months) from the Technical University of Denmark
2016–present	Mr. J. van den Eijnden, University of Amsterdam Primary supervisor, funded by my Vidi research grant. Graduating in 2020
2015–2019	Dr. A. Parikh, University of Amsterdam. Co-supervisor, promotor Wijnands Now postdoctoral fellow at the University of Amsterdam
2015–2019	Dr. A. Rouco Escorial, University of Amsterdam. Co-supervisor, promotor Wijnands Now postdoctoral fellow at the University of Northwestern, USA
2009–2013	Dr. M. Armas Padilla, University of Amsterdam. Co-supervisor, promotor Wijnands Now La Caixa independent postdoctoral fellow at the IAC Tenerife, Spain

Lecturing Experience, Master and Bachelor Supervision

2020	University Teaching Degree (BKO certificate). University of Amsterdam
2019, 2020	Lecturer <i>Astrophysics</i> , BSc students (year 2). University of Amsterdam
2016–2020	Regular guest lecturer, different courses, see CV Appendix. University of Amsterdam
2016–2020	8 MSc projects, 9 BSc projects, see CV Appendix. University of Amsterdam

Full List of Invited talks at International Conferences

- 2020 September: Micro-quasar workshop. Cagliari (Sardinia), Italy
Invited review: *The physics of accretion and ejection*
- June: EAS 2020, XMM-Newton: Current scientific highlights and future prospects. Noordwijk, NL
Invited review: *Low-mass X-ray binaries and transitional millisecond pulsars*
- May: Nordic neutron stars. Aarhus, Denmark
Invited talk: *Probing the evolution of binary stars through X-ray binaries*
- March: PHAROS conference 2020. Patras, Greece
Invited talk: *Probing the physics of neutron stars with X-ray binaries*
- 2019 December: Texas 2019, Relativity at work: discs, jets and magnetic fields. Portsmouth, UK
Review: *The neutron star jet and magnetic field paradigm*
- June: Connecting Thermonuclear Burst Research to a Wider Community. Leiden, NL
Invited review: *Observational signatures of X-ray bursts affecting accretion in X-ray binaries*
- 2018 August: Chandra workshop Accretion in stellar systems. Boston, USA
Invited review: *Outflows from X-ray binaries*
- 2017 June: EWASS symposium. Prague, Czech republic
Invited review: *Crust heating and cooling of transiently accreting neutron stars*
- February 2017: Nuclear Reactions in Superdense Matter – Laboratory to Stars. Bern, Switzerland
Invited talk: *Crust constraints from observing neutron star low-mass X-ray binaries in quiescence*
- January: The disk-magnetosphere interaction for transitional pulsars. Bern, Switzerland
Invited talk: *Low-level accretion in neutron star low-mass X-ray binaries*
- 2016 October: Gamma-Ray Astrophysics in Multi-Wavelength Perspective. Amsterdam, NL
Invited review: *Low-level accretion in neutron star LMXBs*
- May: Stellar remnants at the Junction. Junction, Texas, USA
Invited review: *Compact objects accreting at low mass-accretion rates*
- January: Transient thinkshop 2016. Bormio, Italy
Invited review: *The X-ray view of Galactic X-ray binaries*
- 2015 August: The Zoo of Accreting Compact Objects workshop. Leiden, NL
Invited review: *The quiescent properties of neutron star low-mass X-ray binaries*
- July: Paving the way to simultaneous multi-wavelength astronomy. Leiden, NL
Invited talk: *Multi-wavelength observations and modeling of Sgr A**
- June: 40 years of X-ray bursts. Madrid, Spain
Invited talk: *The delicate connection between X-ray bursts and the accretion flow*
- May: Coranae in the flashlight. Beijing, China
Invited talk: *NuSTAR observations of the changing accretion morphology during X-ray bursts*
- 2014 December: Probing deep inside the neutron star crust. Bern, Switzerland
Invited talk: *New observational results in neutron star crust cooling*
- December: Swift mission conference, celebrating ten years. Rome, Italy
Invited talk: *A Swift legacy: The X-ray monitoring campaign of the Galactic center*
- January: American Astronomical Society's winter meeting. Washington DC, USA
Invited talk: *News from the Galactic center: daily X-ray monitoring observations with Swift*
- 2013 December: European Space Research and Technology Center. Noordwijk, NL
Invited talk: *Slowly accreting neutron stars and black holes*

- October: Swift mission conference. State College, USA
Invited talk: *A Swift legacy: The X-ray monitoring campaign of the Galactic center*
- September: Probing deep inside the neutron star crust. Bern, Switzerland
Invited talk: *An update on the crust cooling curves of EXO 0748–676 and Terzan 5 X-2*
- September: Probing deep inside the neutron star crust. Bern, Switzerland
Invited talk: *Evidence of crust cooling in short-outburst transients?*
- March: Annual Hubble fellowship symposium. STScI, Baltimore, USA
Invited talk: *Feeding the supermassive black hole in the center of the Milky Way Galaxy*
- 2012 October: Nuclear astrophysics town meeting. Detroit, USA
Invited talk: *Heating and cooling of transiently accreting neutron stars*
- 2011 March: Mapping neutron stars with Type-I X-ray bursts. Bern, Switzerland
Invited talk: *Long thermonuclear bursts from hydrogen accretors*
- 2010 July: X-ray bursts and burst oscillations. Leiden, NL
Invited talk: *X-ray bursters accreting at low luminosities*
- 2009 May: Defining the neutron star crust. Santa Fe, USA
Invited talk: *Crustal cooling of EXO 0748–676 and XTE J1701–462*

Full List of Colloquia and Seminars

- 2019 June: L’Institut de Recherche en Astrophysique et Planologie (IRAP). Toulouse, France
Colloquium: *The important role of outflows in X-ray binaries*
- February: ESAC. Madrid, Spain
Colloquium: *Radio jets launched by strongly magnetic neutron stars*
- January: Netherlands Institute for Space Research (SRON). Utrecht, NL
Colloquium: *The important role of outflows in X-ray binaries*
- 2018 October: University of Amsterdam. Amsterdam, NL
Colloquium: *The launching, mass loss and power of X-ray binary outflows*
- April: New York University Abu Dhabi. Abu Dhabi, United Arab Emirates
Colloquium: *Probing dense matter physics with neutron stars*
- 2017 January: Dutch astronomers member’s council meeting. Amsterdam, NL
Colloquium: *The appetite of a neutron star*
- 2016 October: IoA seminar. University of Cambridge, Cambridge, UK
Seminar: *Probing the physics of neutron stars with X-ray observations*
- July: X-ray group seminar. University of Cambridge, Cambridge, UK
Seminar: *An in-depth study of a neutron star accreting at low Eddington rate*
- April: X-ray group seminar. University of Cambridge, Cambridge, UK
Seminar: *Disk reflection and a possible disk wind during the soft state of 1RXS J180408.9–342058*
- 2015 November: Gravity seminar. University of Southampton. Southampton, UK
Seminar: *Probing fundamental physics with accreting neutron stars*
- November: X-ray group seminar. University of Cambridge, Cambridge, UK
Seminar: *NuSTAR observations of neutron star low-mass X-ray binaries*
- October: Sabancı University. Istanbul, Turkey
Seminar: *Crust cooling of neutron stars as a probe of fundamental physics*
- July: X-ray group seminar. University of Cambridge, Cambridge, UK
Seminar: *Probing accretion flows with thermonuclear X-ray bursts*
- February: IoA seminar. University of Cambridge, Cambridge, UK
Seminar: *Monitoring the supermassive black hole in the Milky Way Galaxy*
- 2014 October: High-energy astrophysics seminar. University of Michigan, Ann Arbor, USA
Seminar: *Low-level accretion flows in X-ray binaries*

- October: Physics seminar. University of Michigan, Ann Arbor, USA
Seminar: *Neutron stars as probes of fundamental physics*
- April: X-ray group seminar. University of Cambridge, Cambridge, UK
Seminar: *Peeking into the crust of neutron stars*
- March: Astrophysics seminar. University of Southampton, Southampton, UK
Seminar: *Probing fundamental physics with transiently accreting neutron stars*
- January: Max Planck institut für Extraterrestrische physik, Garching, Germany
Colloquium: *Probing fundamental physics with transiently accreting neutron stars*
- 2013 March: Annual Hubble fellowship symposium. STScI, Baltimore, USA
Seminar: *Feeding the supermassive black hole in the center of the Milky Way Galaxy*
- 2012 September: Astrophysics colloquium. Michigan State University, East Lansing, USA
Colloquium: *Probing fundamental physics with transiently accreting neutron stars*
- April: Astrophysics seminar. University of Michigan, Ann Arbor, USA
Seminar: *Probing fundamental physics with transiently accreting neutron stars*
- March: Annual Hubble fellowship symposium. STScI, Baltimore, USA
Seminar: *Probing fundamental physics with transiently accreting neutron stars*
- February: Astrophysics seminar. University of Wisconsin, Milwaukee, USA
Seminar: *Probing fundamental physics with transiently accreting neutron stars*
- 2009 November: Astrophysics colloquium. University of Leicester, UK
Colloquium: *Crust cooling of accretion heated neutron stars*

Full List of Contributed Conference Talks

- 2019 December: Texas 2019, Relativity at work: neutron stars. Portsmouth, UK
Talk: *Probing the interior of transiently accreting neutron stars*
- 2014 August: The 40th COSPAR Scientific Assembly. Moscow, Russia
Talk: *An accretion disk swept up by a powerful thermonuclear X-ray burst*
- August: The 40th COSPAR Scientific Assembly. Moscow, Russia
Talk: *The Swift Monitoring Campaign of the Galactic center*
- March: Structure and Signal of Neutron Stars, from Birth to Death. Florence, Italy
Talk: *Probing the crusts of transiently accreting neutron stars*
- 2013 November: JSI 2013 workshop, Putting Accretion Theory to the Test. Annapolis, USA
Talk: *Swift J1910.2–0546: A new perspective on accretion flows*
- September: Chandra XVP meeting 2013. Santa Fe, USA
Talk: *Update on the Swift monitoring campaign of the Galactic Center*
- April: High Energy Astrophysics Division (HEAD) 2013. Monterey, USA
Talk: *The Swift monitoring campaign of Sagittarius A**
- March: Compact Objects in Michigan. Wayne State University, Detroit, USA
Talk: *The Swift monitoring campaign of Sagittarius A**
- 2012 August: 28th IAU General Assembly, Beijing, China
Talk: *A new breakthrough in understanding the crusts of neutron stars*
- August: 28th IAU General Assembly, Beijing, China
Talk: *Seven years of nearly-daily observations of Sgr A* with Swift*
- July: X-ray Binaries, Celebrating 50 years since the Discovery of Sco X-1. Boston, USA
Talk: *Probing Fundamental Physics with Transiently Accreting Neutron Stars*
- June: CompStar 2012, The physics of compact stars. Tahiti, French Polynesia
Talk: *A new breakthrough in understanding the crusts of neutron stars*
- 2011 October: Swift mission conference. Clemson, USA
Talk: *Rare thermonuclear X-ray bursts caught by Swift*

- September: High Energy Astrophysics Division (HEAD) 2011. Newport (RI), USA
Talk: *Probing fundamental physics with transiently accreting neutron stars*
- July: International conference Physics of Neutron Stars 2011. St. Petersburg, Russia
Talk: *Transiently accreting neutron stars: peeking into their crusts*
- 2010 March: High Energy Astrophysics Division (HEAD) 2010. Hawaii Big Island, USA
Talk: *Very-faint X-ray binaries*
- 2009 November: Swift mission conference: Celebrating five years. Penn State, USA
Talk: *Swift as a key tool to study sub-luminous X-ray transients*
- June: NOVA Network III Science Meeting. Amsterdam, NL
Talk: *Crust cooling of accretion heated neutron stars*
- 2008 July: The 37th COSPAR Scientific Assembly. Montreal, Canada
Talk: *Sub-luminous X-ray transients near the Galactic center*

Full List of Conference Organization

- 2020 August: **SOC Accretion on All Scales**. Sydney, Australia
 August: **SOC Accretion and Ejection in Galactic Compact Objects**. Sydney, Australia
- 2019 October: **SOC New Horizons in Galactic Center Astronomy and Beyond**. Yokohama, Japan
 July: **SOC chair From Winds to Jets: The Role of Outflows in X-ray Binaries**. Amsterdam, NL
 May: **SOC chair Delving into the neutron star crust**. Amsterdam, NL
- 2018 October: **SOC Time-Domain Astrophysics with Swift**. Clemson, USA
 June: **SOC Bursts and nuclei**. Prato, Italy
- 2017 October: **SOC Fermi 2017**. Garmisch-Partenkirchen, Germany
 September: **SOC La Gomera Accretion Week**. La Gomera, Spain
 June: **SOC The X-ray Universe 2017**. Rome, Italy
 June: **SOC Exploring Neutron Star Structure by Timing and Spectroscopy**. Prague, Czech republic
 February: **SOC The New Era of X-ray Astronomy**. London, UK
- 2016 August: **SOC Chandra Science for the Next Decade**. Boston, USA
 August: **SOC Universal Accretion**. Aspen, USA
 May: **SOC Stellar remnants**. Junction, USA
 August: **SOC Accretion in neutron star and black hole X-ray binaries** (cancelled). Istanbul, Turkey
 August: **SOC Crust cooling in accreting neutron stars and magnetars** (cancelled). Istanbul, Turkey
- 2015 June: **SOC 40 years of X-ray bursts**. Madrid, Spain
- 2011 September: **LOC First LOFT Science Meeting**. Amsterdam, NL
- 2009 May: **LOC Nederlandse Astronomen Conferentie**. Kerkrade, NL
- 2008 April: **SOC and LOC treasurer A decade of accreting millisecond X-ray pulsars**. Amsterdam, NL

Full List of Observing Grants

- 2015 **Chandra**, *Probing the physics of neutron stars using Terzan 5*, USD 27 000
Swift, *A Swift legacy: the monitoring campaign of the Galactic Center*, USD 40 000
- 2014 **HST**, *The nature of the transient X-ray binary Swift J1910.2–0546*, USD 50 000
HST, *The evolutionary link between LMXBs and radio millisecond pulsars*, USD 50 000
Swift, *A Swift legacy: the monitoring campaign of the Galactic Center*, USD 40 000
Chandra, *The nature of the transient X-ray binary Swift J1910.2–0546*, USD 37 000
- 2013 **HST**, *The evolution and accretion morphology of Swift J1357.2–0933*, USD 51 000
Swift, *A Swift legacy: the monitoring campaign of the Galactic Center*, USD 37 000
Swift, *Crust cooling of accretion-heated neutron stars*, USD 36 000
Chandra, *Observing a cooling neutron star crust in Terzan 5*, USD 57 000
XMM-Newton, *The peculiar X-ray burster SAX J2224.9+5421*, USD 59 000
- 2012 **HST**, *The X-ray and UV spectra of EXO 0748–676*, USD 49 000
Chandra, *The X-ray and UV spectra of EXO 0748–676*, USD 38 000
Chandra, *A snapshot survey of Galactic Be/X-ray transients in quiescence*, USD 41 000
Chandra, *Observations of a cooling neutron star crust in Terzan 5*, USD 49 000
- 2011 **Chandra**, *Quiescent monitoring of the 11 Hz X-ray pulsar in Terzan 5*, USD 46 000

Full List of Accepted Observing Proposals as Principal Investigator

Radio PI Proposals

<i>Proposal Description</i>	<i>Observatory/cycle</i>	<i>Time</i>
Swift/VLA monitoring of a giant Be/X-ray binary outburst	VLA 2019AB	6 hours
Jet outflows from a magnetic propeller	VLA 2017B	5 hours
The accretion flow properties of sub-luminous X-ray binaries	VLA 2017A	10 hours
X-ray/radio correlation for neutron star X-ray binaries	VLA 2014A	38 hours
X-ray/radio correlation for neutron star X-ray binaries	VLA 2013A	9 hours
The accretion-jet connection for neutron stars	ATCA 2017B	84 hours
DDT to search for the radio counterpart of GRO J1744–28	ATCA 2017A	8 hours
The accretion-outflow connection for neutron stars	ATCA 2016A	12 hours

Optical/near-infrared PI Proposals

<i>Proposal Description</i>	<i>Observatory/cycle</i>	<i>Time</i>
DDT for a rare chance to identify an unusual black hole system	NTT 2019B	4.5 hours
Mapping accretion disk winds across the electromagnetic spectrum	VLT 2020A	4 hours
Feedback from low-mass X-ray binaries into the ISM	VLT 2019A	3 hours
Unravelling unusual accreting neutron stars and black holes	VLT 2018A	3 hours
Unravelling unusual accreting neutron stars and black holes	VLT 2017A	3 hours
Feedback from low-mass X-ray binaries into the ISM	INT 2018B	7 nights
Disruption of a gas cloud by the supermassive black hole Sgr A*	Magellan 2014B	1 night
Disruption of a gas cloud by the supermassive black hole Sgr A*	Magellan 2014A	1 night
Infrared spectroscopy of sub-luminous neutron star X-ray binaries	Magellan 2014A	3 nights
Disruption of a gas cloud by the supermassive black hole Sgr A*	Magellan 2013B	4 nights
Infrared imaging of sub-luminous neutron star X-ray binaries	Magellan 2013A	3 nights
Optical spectroscopy of MAXI J1305–704 and Cen X-4	Magellan 2012A	1 nights
Sub-luminous X-ray binaries TOO	SMARTS 2009B	0.4 nights

Ultraviolet PI Proposals

<i>Proposal Description</i>	<i>Observatory/cycle</i>	<i>Time</i>
DDT for UV spectroscopy of a short-period black hole in outburst	HST cycle 24	4 orbits
A radio millisecond pulsar in a low-mass X-ray binary?	HST cycle 24	4 orbits
The nature of the transient black hole candidate Swift J1910.2–0546	HST cycle 22	2 orbits
The evolutionary link between LMXBs and MSRPs	HST cycle 22	6 orbits
Evolution and accretion morphology of short-period black hole	HST cycle 21	9 orbits
The quiescent UV spectrum of the neutron star EXO 0748–676	HST cycle 20	9 orbits

X-ray PI Proposals

<i>Proposal Description</i>	<i>Observatory/cycle</i>	<i>Time</i>
An unexplored regime of neutron star heating and cooling	Chandra AO20	90 ks
DDT on outflows from a nearby super-Eddington accretor	Chandra AO19	25 ks
The very cold neutron star in HETE J1900.1–2455	Chandra AO19	55 ks
New progress in understanding the crusts of neutron stars	Chandra AO18	60 ks
DDT on the very cold neutron star in HETE J1900.1–2455	Chandra AO17	30 ks
Probing physics of neutron stars using Terzan 5	Chandra AO17	135 ks
DDT on the accretion disk wind in 1RXS J180408.9–342058	Chandra AO16	30 ks
The nature of the transient X-ray binary Swift J1910.2–0546	Chandra AO16	45 ks
A cooling neutron star crust in Terzan 5	Chandra AO15	105 ks
Neutron star X-ray binary EXO 0748–676 in quiescence	Chandra AO15	45 ks
A cooling neutron star crust in Terzan 5	Chandra AO14	135 ks
Quiescent monitoring 11-Hz X-ray pulsar in Terzan 5	Chandra AO13	100 ks
DDT to detect a cooling neutron star crust in Terzan 5	Chandra AO12	40 ks
Neutron star crust cooling EXO 0748–676	Chandra AO11–AO12	40 ks
Neutron star crust cooling TOO on HETE J1900.1–2455	Chandra AO11–AO12	90 ks
Crust cooling TOO HETE J1900.1–2455 + Swift J1626.6–5156	Chandra AO9–AO10	120 ks
DDT to localize XMMUJ174716.1–281048	Chandra AO8	1 ks
Linking jet suppression to accretion geometry	NuSTAR AO4	60 ks
Testing disk truncation for accreting neutron stars	NuSTAR AO4	60 ks
DDT on jet suppression and accretion geometry	NuSTAR AO3	20 ks
DDT on the “moding” of the transitional pulsar PSR J1023+0038	NuSTAR AO3	25 ks
An accretion disk wind at low Eddington rate?	NuSTAR AO2	75 ks
DDT to search for disk reflection in 4U 1608–52	NuSTAR AO1	40 ks
How neutron stars accrete at low Eddington rates	NuSTAR AO1	75 ks
DDT to search for disk reflection in MXB 1659–28	NuSTAR AO1	50 ks
DDT observations of various transient X-ray binaries, 77 in total	Swift AO6–AO15	362 ks
Swift/VLA monitoring of a giant Be/X-ray binary outburst	Swift AO15	20 ks
Testing disk truncation for accreting neutron stars	Swift AO14	11 ks
X-ray monitoring of Sgr A* during the Event Horizon Telescope	Swift AO13	52 ks
The accretion flow properties of sub-luminous X-ray binaries	Swift AO13	30 ks
Galactic center monitoring campaign	Swift AO9–AO15	248 ks
Neutron star crust cooling TOO	Swift AO6–AO13	60 ks
Galactic center monitoring campaign	Swift AO6–AO8	81 ks
The nature of the compact accretor in exotic X-ray binaries	XMM AO17	100 ks
An accretion disk wind at low Eddington rate?	XMM AO15	70 ks
Neutron star crust cooling in 1RXS J180408.9–342058	XMM AO15	70 ks
DDT to search for crust cooling in 1RXS J180408.9–342058	XMM AO14	30 ks
The nature of the transient black hole candidate Swift J1910.2–0546	XMM AO13	60 ks
DDT to search for crust cooling in RX J1709–267	XMM AO12	30 ks
Peculiar X-ray burster SAX J2224.9+5421 in quiescence	XMM AO10 + AO12	50 ks
Accreting millisecond pulsar Swift J1749.4–2807 in quiescence	XMM AO9 + AO10	100 ks
Sub-luminous X-ray binary AX J1754.2–2754	XMM AO7 + AO9	35 ks
Sub-luminous X-ray binaries in outburst	RXTE AO13–AO14	100 ks

Full Overview of Teaching Activities

Lecture series

2019, 2020 Lecturer *Astrophysics*, BSc students (year 2). University of Amsterdam

Guest and substitute lectures

2019, 2020 Guest lecturer *Compact Objects*, BSc students (year 3). University of Amsterdam
2017 Guest lecturer *Open Problems*, MSc students. University of Amsterdam
2017 Substitute lecturer *Astrophysics*, BSc students (year 3). University of Amsterdam
2012 Guest lecturer *High Energy Universe*, PhD students. University of Michigan
2009 Substitute lecturer *Compact Objects*, BSc students (year 3). University of Amsterdam
2008, 2009 Guest lecturer *Orientation*, BSc students (year 3). University of Amsterdam

Supervision of Master Research

2020–present Astrovaria (6 ECTS), Ms. J. Kleverlaan, University of Amsterdam
2020–present Astrovaria (6 ECTS), Ms. S. Fijma, University of Amsterdam
2020–present Astrovaria (6 ECTS), Mr. J. Groot, University of Amsterdam
2020–present Astrovaria (6 ECTS), Ms. M. van Etten, University of Amsterdam
2019–present MSc research project (60 ECTS), Mr. M. Stoop, University of Amsterdam
2018–2019 MSc research project (60 ECTS), Ms. M. Georganti, University of Amsterdam
Now PhD student in astronomy at the University of Southampton, UK
2018 ERASMUS+ research project (4 months), Ms. E. López, University of Amsterdam
Now PhD student in astronomy at the University of Valparaíso, Chile
2017 ERASMUS+ research project (3 months), Mr. A. Marino, University of Amsterdam
Now PhD student in astronomy at the University of Palermo, Italy
2009–2010 MSc research project (60 ECTS), Dr. S. Broerse, University of Amsterdam
PhD in astronomy, now Business Intelligence and Analytics Manager at Deloitte

Supervision of Undergraduate Research

2019–2020 BSc research project, Mr. Osman Ahmed, Debre Tabor University, Ethiopia (remote)
Attendee of the Advancing Theoretical Astrophysics school held at API in 2019
2019 ASPIRE research project (2 months), Mr. Alexis Andres, University of Amsterdam
2019 BSc research project (15 ECTS), Ms. S. Fijma, University of Amsterdam
2019 BSc research project (15 ECTS), Ms. J. Kleverlaan, University of Amsterdam
2019 BSc research project (15 ECTS), Ms. M. van Etten, University of Amsterdam
2019 BSc research project (15 ECTS), Mr. J. Groot, University of Amsterdam
2018 BSc research project (15 ECTS), Mr. B. Belhach, University of Amsterdam
2018 BSc research project (15 ECTS), Mr. L. Kok, University of Amsterdam
2018 BSc research project (15 ECTS), Mr. M. Rustenburg, University of Amsterdam
2015 Summer research project (2 months), Ms. A.C. Waterhouse, University of Cambridge
2009 BSc research project (15 ECTS), Mr. O. Gurney-Champion, University of Amsterdam
2008 BSc research project (15 ECTS), Mr. S. Westerhout, University of Amsterdam

Teaching assistant

2008 Teaching assistant *Astrophysics*, BSc students (year 2). University of Amsterdam
2008 Teaching assistant *Solar system*, BSc students (year 2). University of Amsterdam
2006, 2007 Teaching assistant *Astronomy I*, BSc students (year 1). University of Amsterdam
2006, 2007 Teaching assistant *Astronomy lab*, BSc students (year 3). University of Amsterdam

Journal abbreviations used: ApJ = Astrophysical Journal, A&A = Astronomy & Astrophysics, MNRAS = Monthly Notices of the Royal Astronomical Society, A&G = Astronomy & Geophysics, ATel = Astronomer's Telegram, JApA = Journal of Astrophysics and Astronomy, SCPMA = Science China Physics, Mechanics & Astronomy.

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