

Report from the Project Scientist

Norbert Schartel

26/06/2024

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→ THE EUROPEAN SPACE AGENCY

- ❑ Announcement of Opportunity (AO)
 - ❑ AO 23
 - ❑ AO 24 Preparation
- ❑ Target of Opportunity (TOO)
- ❑ Publications
- ❑ Public Relations
- ❑ Workshops & Conferences
- ❑ Gender, Age & Biases
- ❑ Extension

AO 23 I

Submission Statistics for AO23

Nr. of proposals received:	441
Nr. of PI's	373
Nr. of Co-I's per proposal	6
Nr. of PI's+Co-I's (email)	1682
Nr. of PI's+Co-I's (surname)	1425
Nr. of countries participating	39
Nr. of Observations	2137
Nr. of Pointings	3061
Nr. of targets	1580
Nr. of Obs. per Proposal	4.8
Nr. of Pointings per Proposal	6.9
Total Req. Time (ks)	115563
Average Req. Time per proposal (ks)	262.0
Average Req. Time per pointing (ks)	46.6
Average Req. Time per observation (ks)	54.1



AO 23 II



Statistics by PI/Country

Country	Nr. of proposals ▲	Req. Time (ks)
UNITED STATES	202	53870
GERMANY	61	10059
ITALY	59	19026
UNITED KINGDOM	24	9498
CHINA	23	5560
FRANCE	12	3032
ESA	9	2340
SPAIN	9	989
JAPAN	8	1077
NETHERLANDS	7	1598
BELGIUM	5	716
SWITZERLAND	4	1656
MEXICO	4	1031
RUSSIA	4	408
INDIA	4	399

GREECE	3	727
CANADA	3	509
POLAND	3	360
SOUTH KOREA	2	412
TURKEY	2	275
IRELAND	2	120
ISRAEL	1	342
OTHER	1	282
SOUTH AFRICA	1	256
NORWAY	1	240
DENMARK	1	239
ARGENTINA	1	234
FINLAND	1	104
CHILE	1	78
THAILAND	1	59
SWEDEN	1	42
CZECH REPUBLIC	1	25

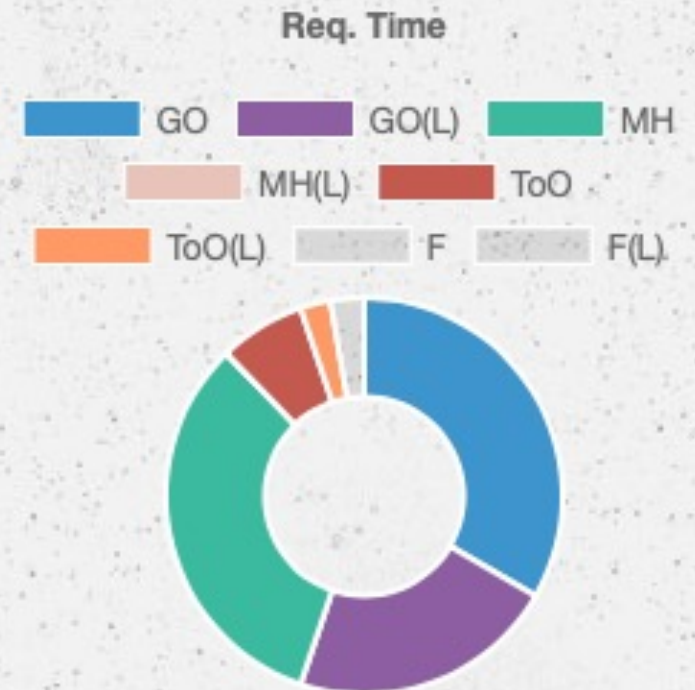
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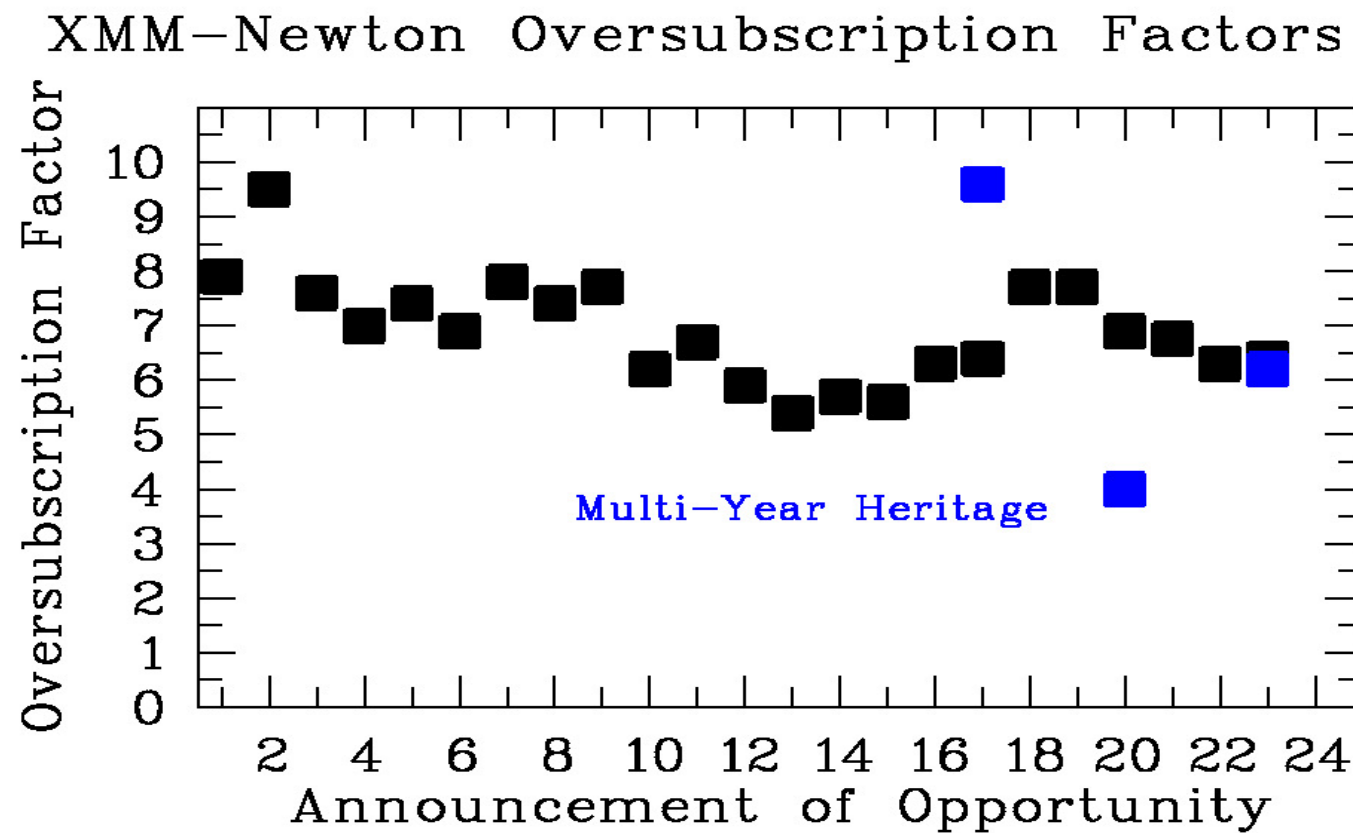


→ THE EUROPEAN SPACE AGENCY

Statistics by Proposal Type

Proposal Type	Nr. of proposals (Large Program)	Total Time (ks) (Large Program)
Guest Observer	347 (44)	63805 (25239)
Multi-Year Heritage	11 (0)	37641 (0)
Target of Opportunity (anticipated)	65 (7)	10951 (2849)
Fulfil	18 (0)	3166 (0)

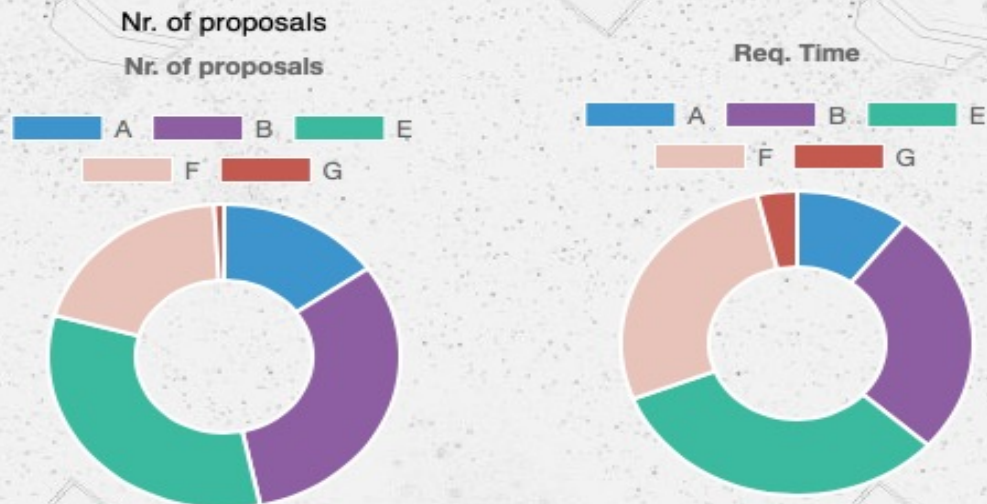




AO 23 V

Categories Distribution

Category	Nr. of Proposals (Large Programs)	Nr. of Observations (Large Programs)	Total Time Req. (ks) (Large Programs)
A	67 (7)	248 (47)	12087 (2924)
B	139 (11)	448 (74)	30311 (4782)
E	144 (16)	803 (123)	37390 (9621)
F	87 (16)	624 (252)	31571 (10367)
G	4 (1)	14 (6)	4204 (394)
	441 (51)	2137 (502)	115563 (28088)



Category	Topic	Category	Topic
A	Stars & Planets	E	AGN
B	Compact Objects	F	Galaxies and Clusters
		G	Cosmology

Statistics on Joint observations (203 observations in 93 proposals)

	Nr. of Prop.	Nr. of obs	Time/Orbits
Chandra	9	25	911.0
HST	17	33	112.0
VLT	14	19	92.27
Swift	16	31	654.0
NuSTAR	40	90	7525.0
INTEGRAL	0	0	None
MAGIC	0	0	None
HESS	0	0	None
NRAO	7	23	64.59
JWST	9	11	49.72

AO 23 VII



Proposal ID	AO	PI	Proposal Title	No.Obs	Awarded Time (ks)	Prop Type	No. Papers	Category
094051	23	Gatuzz	Abell 2029 cluster	8	748	LP	0	Clusters of Galaxies
094083	23	Hlavacek-Larrondo & Zhang	Deep XMM Observations of an Assembling Cool Core Cluster of Galaxies at z=1.709	6	526	LP	0	Clusters of Galaxies
094096	23	Stelzer	Complete X-ray census of the young moving group Volans-Carina	14	374	LP	0	Stars
094121	23	Pierre, Paltani, Maughan & Bolzonella	X-EDFF	149	3576	MYHP0		AGN & Clusters of Galaxies
094132	23	Maitra	First complete view of the Magellanic bridge with eROSITA and XMM-Newton legacy	16	528	LP	0	Galaxies
094283	23	Agueros	Exploring the juvenile behavior of 2.7-Gyr-old-stars in Ruprecht 147	5	440	LP	0	Stars
094353	23	Lanzuisi	The WISSHFUL Program: unveiling SMBH winds at cosmic noon.	26	2331	MYHP0		AGN / Black Hole
094365	23	Braitto, Severgnini & Reeves	Monitoring the unprecedented disk wind in MCG-03-58-007	6	385	LP	0	AGN / Black Hole
094377	23	Zappacosta	Probing the SMBH mass growth of the first QSOs	6	604	LP	0	AGN / Black Hole
094484	23	Parra	Tracking the Wind of a Black Hole Low-Mass X-ray Binary in Spectral Transition	10	340	LP	0	AGN / Black Hole

AO24 Preparation



- Planned key milestones public (in future on web-page only!!)

The planned key milestones for AO-24 are:

Announcement of Opportunity	20 August 2024
Due date for Proposals	11 October 2024 (12:00 UT)
Final OTAC approved programme	mid December 2024

For approved proposals only:

Start of Phase II proposal submission	8 January 2025
Closure of Phase II proposal submission	31 January 2025
Start of AO-24 observations	May 2025

- 5 Scientific categories / 11 Panel / 56 Scientists
- OTAC chairperson: Prof. Phil Charles, Southampton/Oxford, United Kingdom
- OTAC panel Chairpersons are asked not to participate on new Large Programs

Targets of Opportunity and Director's Discretionary Time I



Rev	Observation Id	Target	RA	Dec	Exp. Time (ksec)	Data Status	ODF Data when available	PPS Data when available	Proposer/ Comments
TBD.	TBD	RBS 1774	21:43:03.80	+06:54:20.0	30.0	ToO (TBD)	ODF Data	PPS Data	(Dr. G. Pavlov)
TBD.	TBD	NGC3783	11:39:01.70	-37:44:19.0	110.0	DPS (TBD)	ODF Data	PPS Data	(XRISM PV / Dr. J. Kaastra)
4499	TBD	NGC4151	12:10:32.60	+39:24:20.6	50.0	DPS (TBD)	ODF Data	PPS Data	(XRISM PV / Dr. J. Miller)
4490	TBD	NGC4151	12:10:32.60	+39:24:20.6	50.0	DPS (TBD)	ODF Data	PPS Data	(XRISM PV / Dr. J. Miller)
4484	TBD	NGC4395	12:25:48.90	+33:32:48.7	20.0	DPS (TBD)	ODF Data	PPS Data	(Dr. I. McHardy)
4483	TBD	NGC4395	12:25:48.90	+33:32:48.7	20.0	DPS (TBD)	ODF Data	PPS Data	(Dr. I. McHardy)
4478	TBD	WISEA J095748.28-371618.3	09:57:48.30	-37:16:18.4	30.0	ToO (TBD)	ODF Data	PPS Data	(Dr. C. Panagiotou)
4477	TBD	NGC4151	12:10:32.60	+39:24:20.6	50.0	DPS (TBD)	ODF Data	PPS Data	(XRISM PV / Dr. J. Miller)
4474	0935190301	RBS 1774	21:43:03.80	+06:54:20.0	34.9	ToO (TBD)	ODF Data	PPS Data	(Dr. G. Pavlov))
4467	0935190101	AT2019teq	18:59:05.50	+47:31:05.7	55.7	ToO (09-Nov-2024)	ODF Data	PPS Data	(Dr. J. Chakraborty)
4465	0935190401	EP240426a	08:07:25.60	-29:27:39.2	44.9	DPS (Public)	ODF Data	PPS Data	(Dr. N. Schartel)
4462	0934990301	4U1916-053	19:18:47.90	-05:14:09.0	55.3	DPS (29-Apr-2025)	ODF Data	PPS Data	(XRISM PV / Dr. M. Diaz-Trigo)
4460	0934990201	4U1916-053	19:18:47.90	-05:14:09.0	105.2	DPS (25-Apr-2025)	ODF Data	PPS Data	(XRISM PV / Dr. M. Diaz-Trigo)
4459	0934990101	SS 433	19:11:49.60	+04:58:57.8	66.9	DPS (24-Apr-2025)	ODF Data	PPS Data	(XRISM PV / Dr. M. Shidatsu)
4457	0935190201	AT 2024eff	05:51:41.90	-19:13:06.2	26.8	ToO (15-Oct-2024)	ODF Data	PPS Data	(Dr. Y. Wang)
4454	0932392301	Sgr A*	17:45:40.00	-29:00:28.1	55.7	DPS (Public)	ODF Data	PPS Data	(Dr. N. Schartel)
4442	0932392101	1ES 1927+654	19:27:19.50	+65:33:54.3	33.1	ToO (27-Sep-2024)	ODF Data	PPS Data	(Dr. M. Masterson)
4441	0932392201	AT2020ayl	16:01:00.40	+33:16:15.9	16.0	ToO (15-Sep-2024)	ODF Data	PPS Data	(Dr. S. Xinwen)
4438	0932392001	1ES 1927+654	19:27:19.50	+65:33:54.3	33.0	ToO (08-Sep-2024)	ODF Data	PPS Data	(Dr. M. Masterson)
4428	0932391601	ZTF21abccdlid	15:56:41.90	+68:22:42.9	36.9	ToO (22-Aug-2024)	ODF Data	PPS Data	(Dr. Z. Lin)
4427	0932391901	ZTF20abwtifz	03:13:35.70	-02:09:06.2	23.1	ToO (20-Aug-2024)	ODF Data	PPS Data	(Dr. S. Gezari)
4409	0932391401	eRO-QPE1	02:31:47.30	-10:20:10.3	126.1	ToO (11-Jul-2024)	ODF Data	PPS Data	(Dr. R. Arcodia)
4408	0932391201	ASASSN-14ko	05:25:18.10	-46:00:20.3	50.7	ToO (09-Jul-2024)	ODF Data	PPS Data	(Dr. J. Chakraborty)

TOO := OTAC
chairperson
recommendation

DPS := PS
decision



Targets of Opportunity and Director's Discretionary Time II



Rev	Observation Id	Target	RA	Dec	Exp. Time (ksec)	Data Status	ODF Data when available	PPS Data when available	Proposer/ Comments
4407	0932391501	AT2022upj	00:23:56.80	-24:25:23.0	37.5	ToO (09-Jul-2024)	ODF Data	PPS Data	(Dr. Z. Lin)
4403	0932390701	ZTF22abajudi	02:20:08.00	-22:43:15.4	43.0	ToO (02-Jul-2024)	ODF Data	PPS Data	(Dr. Y. Yao)
4399	0932391301	AT2023lli	22:57:39.50	+40:32:40.7	20.0	ToO (27-Jun-2024)	ODF Data	PPS Data	(Dr. S. Huang)
4395	0931791301	2MASX J02344872-4419325	02:34:48.70	-44:19:32.5	36.0	ToO (15-Jun-2024)	ODF Data	PPS Data	(Dr. R. Arcodia)
4391	0932391101	GRB231117A	22:09:33.60	+13:31:21.1	59.9	ToO (11-Jun-2024)	ODF Data	PPS Data	(Dr. E. Troja)
4390	0932390201	The Cloverleaf ORC	11:37:23.50	-00:50:49.2	35.0	DPS (11-Jun-2024)	ODF Data	PPS Data	(Dr. E. Bulbul)
4389	0932390901	pi Aqr	22:25:16.60	+01:22:38.6	10.0	DPS (11-Jun-2024)	ODF Data	PPS Data	(Dr. Y. Naze)
4384	0932391001	GRB231115A	09:56:00.20	+69:40:29.2	55.0	DPS (23-May-2024)	ODF Data	PPS Data	(Dr. A. Levan, Dr. S. Campana & Dr. S. Mereghetti)
4384	0932390801	J0704-37	07:04:13.20	-37:06:14.6	34.5	ToO (24-May-2024)	ODF Data	PPS Data	(Dr. N. Rea)
4368	0932390601	GX 13+1	18:14:31.50	-17:09:26.7	16.0	DPS (Public)	ODF Data	PPS Data	(Dr. A. Bobrikova)
4367	0932390301	V404 Cyg	20:24:03.80	+33:52:02.0	18.9	DPS (Public)	ODF Data	PPS Data	(Dr. R. Hynes)
4363	0932390401	2SXPS J195654.1+3049	19:56:54.20	+30:49:38.8	18.4	DPS (Public)	ODF Data	PPS Data	(Dr. L. Marcotulli)
4360	0932390501	gx 339-4	17:02:49.40	-48:47:23.1	15.0	ToO (Public)	ODF Data	PPS Data	(Dr. P. Petrucci)
4359	0931791201	WISEA J045649.8-20	04:56:49.80	-20:37:47.9	13.4	ToO (Public)	ODF Data	PPS Data	(Dr. Z. Liu)
4353	0932390101	ESO184-G042	19:14:22.00	-54:33:56.2	20.0	DPS (Public)	ODF Data	PPS Data	(Dr. K. Dolag)
4351	0931791501	WISEA J045649.8-20	04:56:49.80	-20:37:47.9	18.3	ToO (Public)	ODF Data	PPS Data	(Dr. L. Zhu)
4343	0931791001	WISEA J045649.8-20	04:56:49.80	-20:37:47.9	16.0	ToO (Public)	ODF Data	PPS Data	(Dr. L. Zhu)
4333	0931791401	1ES 1927+654	19:27:19.50	+65:33:54.3	36.4	ToO (Public)	ODF Data	PPS Data	(Dr. S. Laha)
4326	0931790701	ngc 5273	13:42:08.38	+35:39:15.4	12.8	ToO (Public)	ODF Data	PPS Data	(Dr. F. Vincentelli)
4320	0931790601	GX 304-1	13:01:17.10	-61:36:06.6	8.0	DPS (Public)	ODF Data	PPS Data	(Dr. A. Zainab)
4320	0931790501	SAX J1324.4-6200	13:24:26.70	-62:01:19.5	28.0	DPS (Public)	ODF Data	PPS Data	(Dr. L. Ducci)
4319	0914793101	GSN 069	01:19:08.50	-34:11:30.5	108.2	ToO (Public)	ODF Data	PPS Data	(Dr. G. Miniutti)
4314	0931790401	1E2259+586	23:01:08.10	+58:52:44.0	20.5	ToO (Public)	ODF Data	PPS Data	(Dr. R. Taverna)
4304	0914792901	GSN069	01:19:08.70	-34:11:30.5	119.7	ToO (Public)	ODF Data	PPS Data	(Dr. G. Miniutti)
4303	0931790301	AT2023cvb	19:14:25.70	+41:40:09.3	63.6	DPS (Public)	ODF Data	PPS Data	(Dr. N. Schartel)

TOO := OTAC
chairperson
recommendation

DPS := PS
decision



Targets of Opportunity and Director's Discretionary Time III

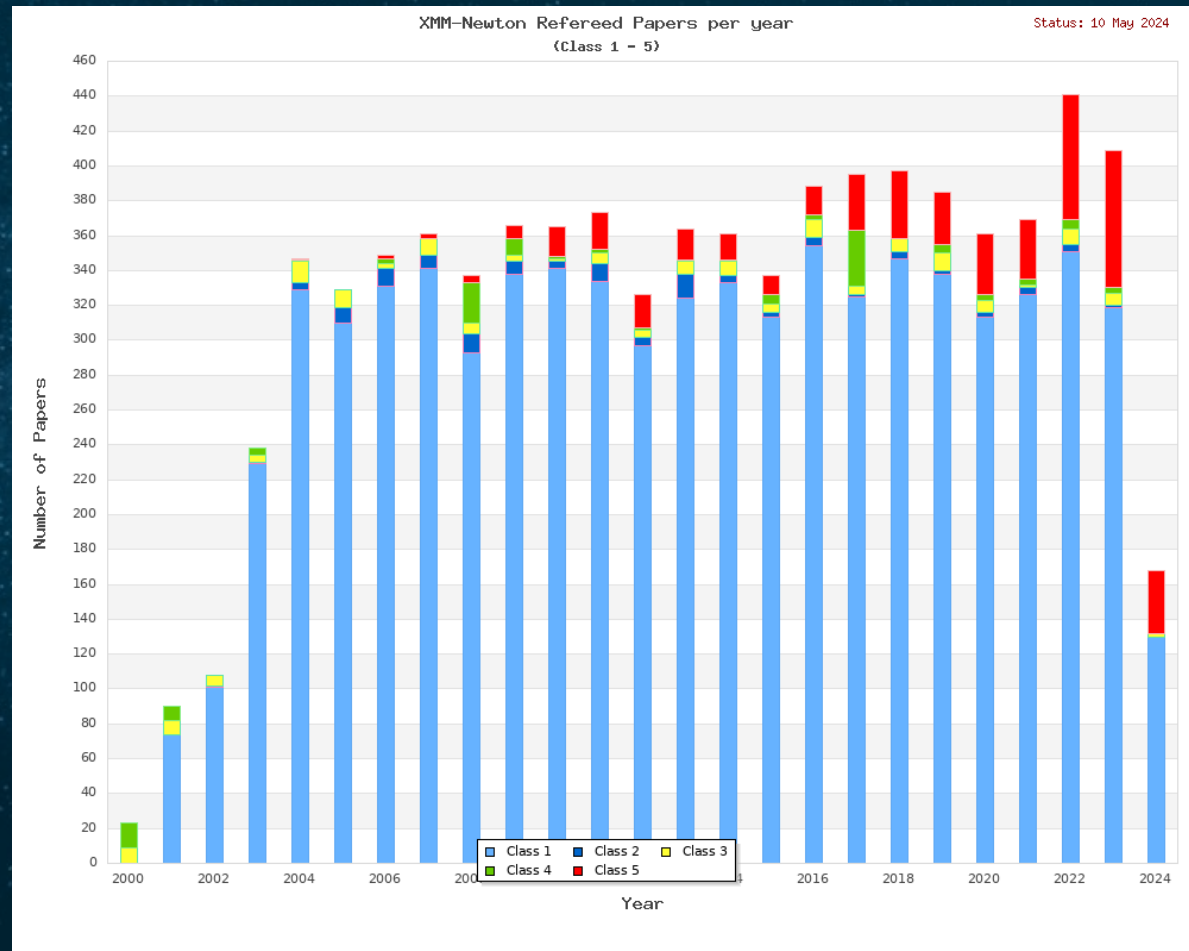


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4302	0931790201	AT2021lwx	21:13:48.40	+27:25:50.5	56.1	ToO (Public)	ODF Data	PPS Data	(Dr. M. Guolo)
4298	0914792701	GSN 069	01:19:08.66	-34:11:30.5	60.0	ToO (Public)	ODF Data	PPS Data	(Dr. G. Miniutti)
4297	0931790101	SN2023ixf	14:03:38.60	+54:18:42.0	83.6	ToO (Public)	ODF Data	PPS Data	(Dr. S. Campana)
4296	0930590801	ESO 198-G24	02:38:19.72	-52:11:32.3	116.2	Sat. Engineering (public)	ODF Data	PPS Data	(Replenishment)
4295	0939590601	ESO 198-G24	02:38:19.72	-52:11:32.3	116.2	Sat. Engineering (public)	ODF Data	PPS Data	(Replenishment)
4294	0915392001	AT2020vdq	10:08:53.50	+42:43:00.4	16.1	DPS (Public)	ODF Data	PPS Data	(Dr. J. Somalwar)
4284	0930590301	B2 0917+23	09:20:45.60	+23:38:60.0	56.2	ToO (Public)	ODF Data	PPS Data	(Dr. S. Laha)
4275	0915391701	GRB 230307A	04:03:26.20	-75:22:43.8	119.9	ToO (Public)	ODF Data	PPS Data	(Dr. B. O'Connor)

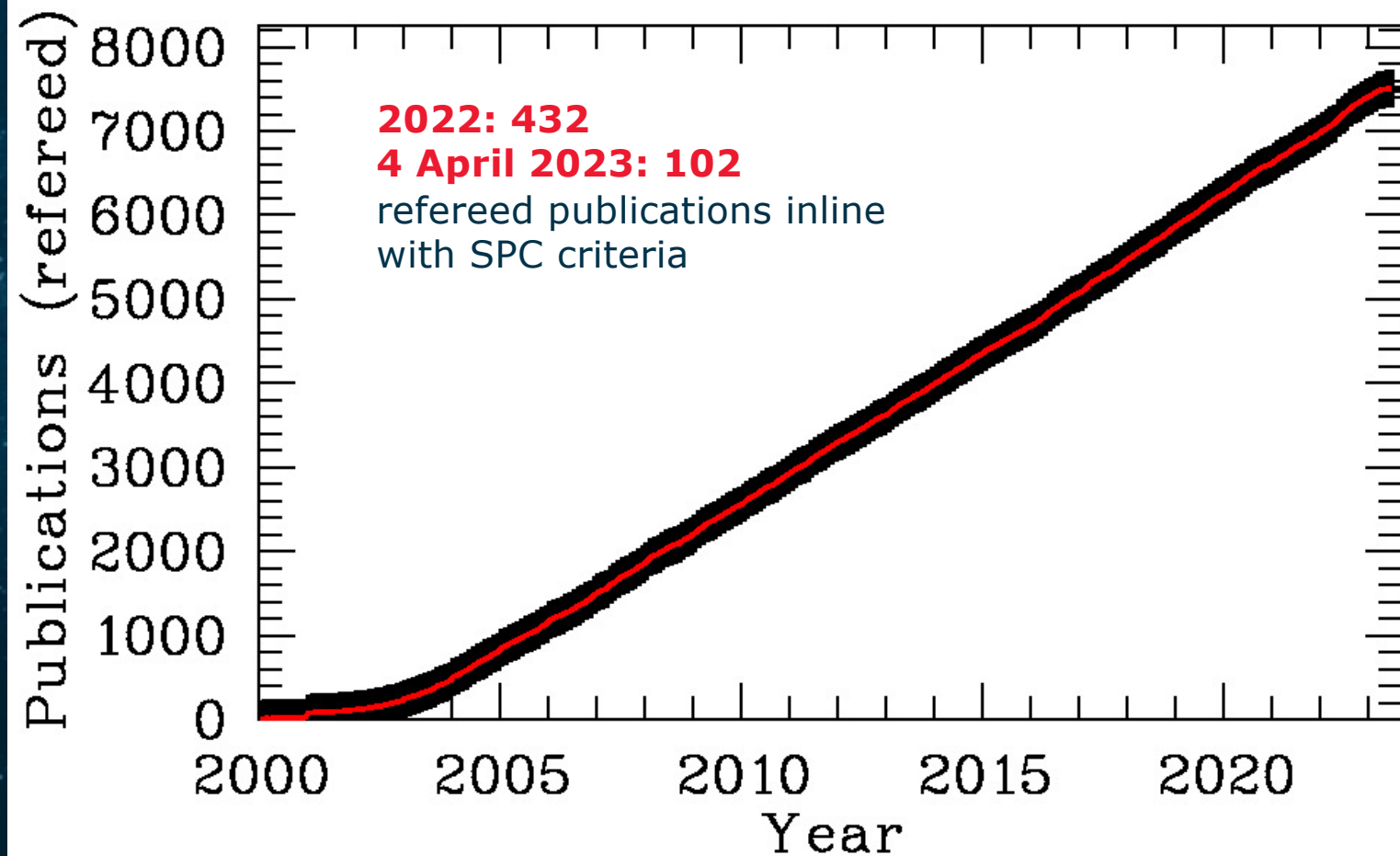
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DPS := PS
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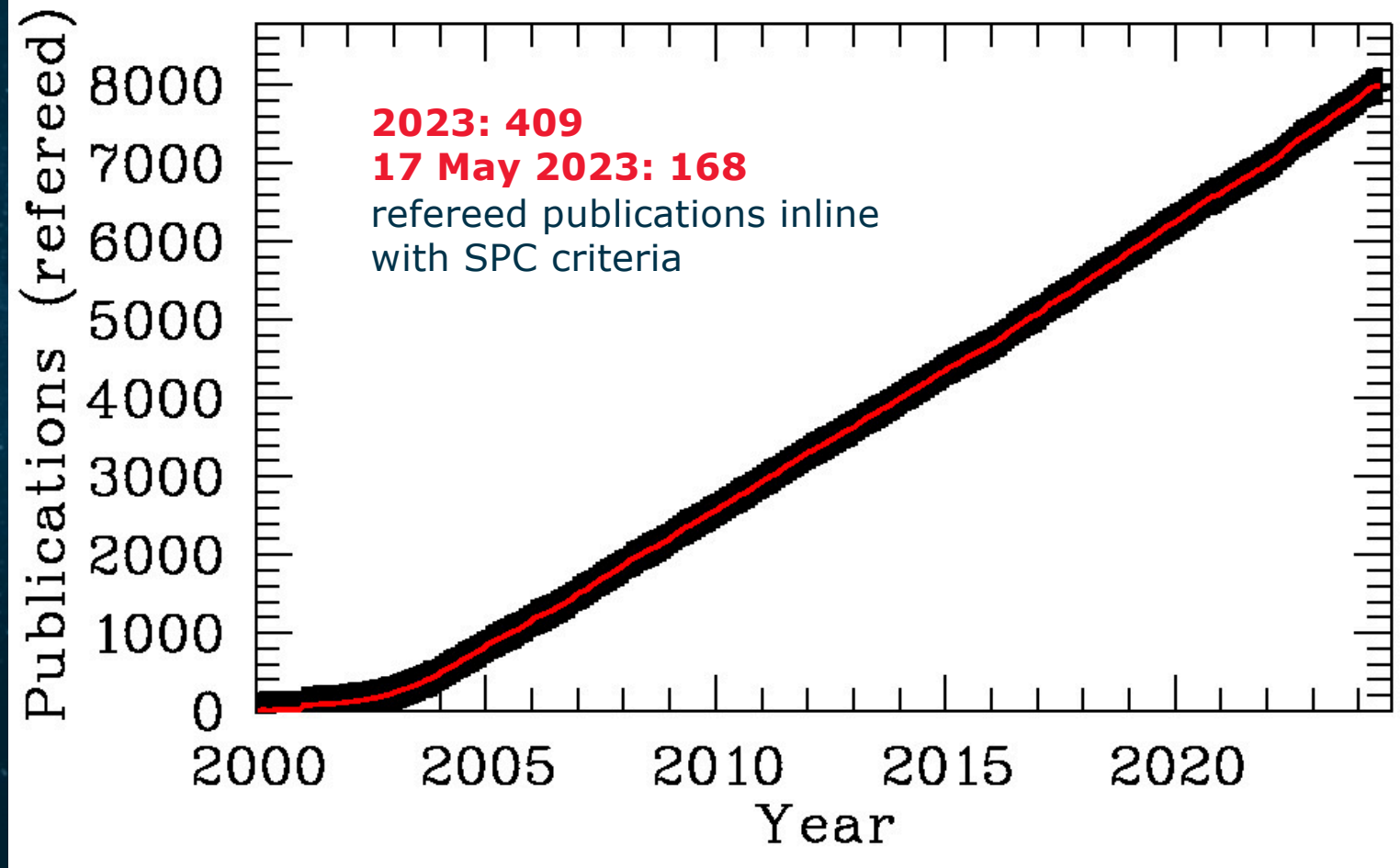
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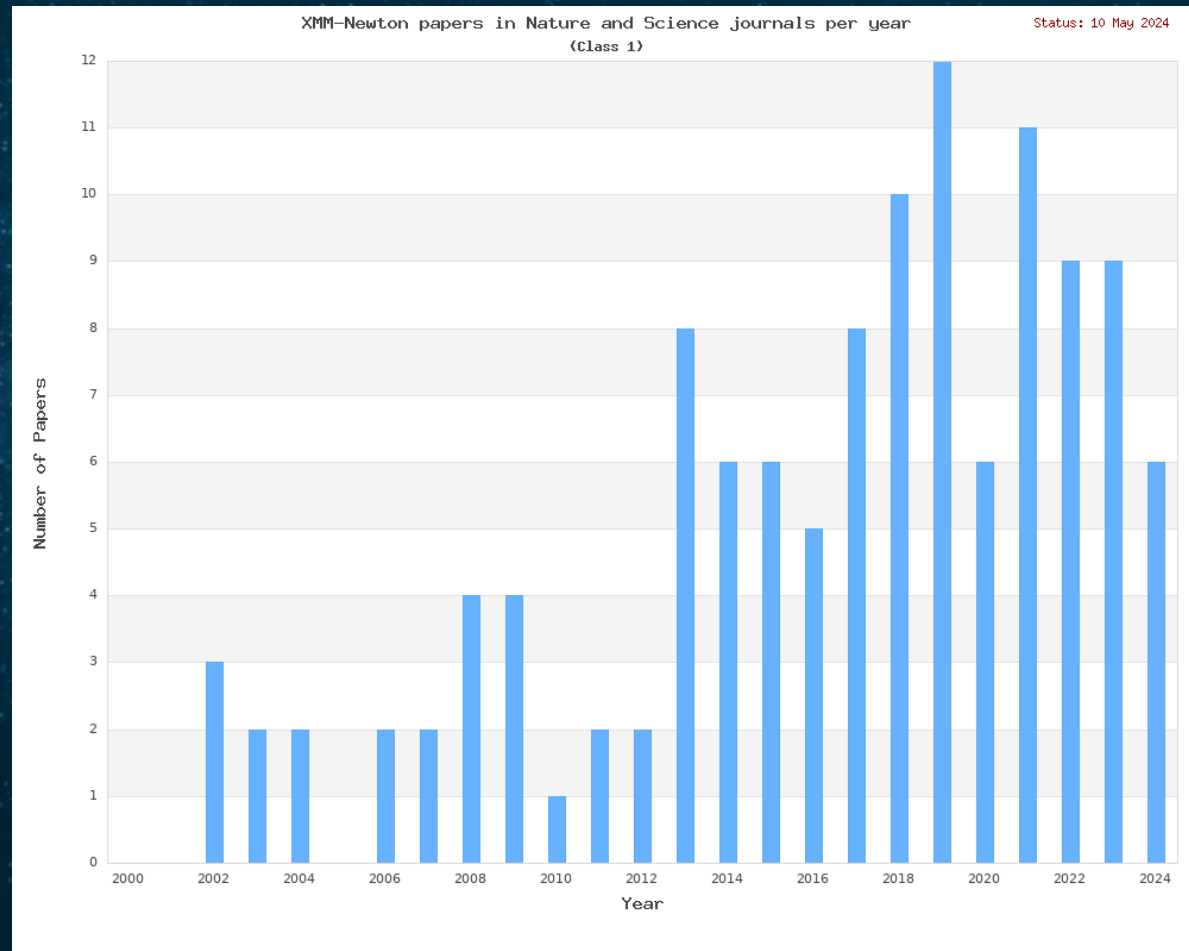
Publications II



Publications II



Publications III



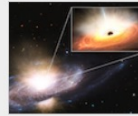
Public Outreach II



01-Feb-2024

XMM-NEWTON SPOTS A BLACK HOLE THROWING A TANTRUM

Until now, this ultra-fast 'black hole wind' had only been detected coming from extremely bright accretion discs, which are at the limit of how much matter they can draw in. This time, XMM-Newton detected ultra-fast wind in a distinctly average galaxy which you could say was 'only snacking'.
Further details on [ESA web portal](#).



17-Jan-2024

NASA SCIENTISTS DISCOVER A NOVEL GALACTIC 'FOSSIL'

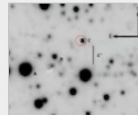
Researchers at NASA's Goddard Space Flight Center in Greenbelt, Maryland, have discovered X-ray activity that sheds light on the evolution of galaxies. The work was made possible thanks to data collected by the ESA (European Space Agency) satellite XMM-Newton with help from NASA's Chandra X-ray Observatory.
Further details on [NASA web portal](#).



16-Jan-2024

ASTRONOMERS DISCOVER NEW BE/X-RAY BINARY SYSTEM

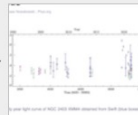
Astronomers from the Open University in Milton Keynes, UK and elsewhere report the detection of a new Be/X-ray binary. The newfound system, designated 4XMM J182531.5-144036, exhibits persistent X-ray emission. 4XMM J182531.5-144036 was initially detected as a hard X-ray source in April 2008 with ESA's XMM-Newton satellite.
Further details on [Phys.org web portal](#).



11-Jan-2024

NGC 2403 XMM4 IS A SUPER-EDDINGTON NEUTRON STAR, STUDY FINDS

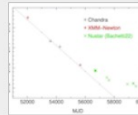
By analyzing the data from various space telescopes, astronomers have performed a detailed study of an ultraluminous X-ray source known as NGC 2403 XMM4. They analyzed 20 years of observational data from XMM-Newton, Chandra, Swift and NuSTAR space telescopes.
Further details on [Phys.org web portal](#).



08-Jan-2024

RESEARCHERS INVESTIGATE PULSATIONS OF THE ULTRA-LUMINOUS X-RAY PULSAR M82 X-2

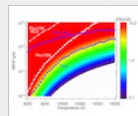
Using NASA's Chandra spacecraft and ESA's XMM-Newton satellite, Chinese astronomers have inspected the pulsations of an ultra-luminous X-ray pulsar known as M82 X-2. Results of the study indicate that the pulsar showcases a long-term spin-down trend.
Further details on [Phys.org web portal](#).



06-Jan-2024

THE ELUSIVE ATMOSPHERE OF WASP-12 B / HIGH-RESOLUTION TRANSMISSION SPECTROSCOPY WITH CARMENES

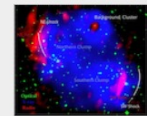
To date, the hot Jupiter WASP-12 b has been the only planet with confirmed orbital decay. The late F-type host star has been hypothesized to be surrounded by a large structure of circumstellar material evaporated from the planet. [...] To constrain the enigmatic activity state of WASP-12, we analyzed XMM-Newton X-ray data.
Further details on [Astrobiology web portal](#).



19-Dec-2023

SECOND RADIO RELIC DISCOVERED IN THE GALAXY CLUSTER ABELL 2108

Chatterjee's team spotted a distinct diffuse emission feature in the northeastern periphery of Abell 2108. The brightest region of this feature was measured to be about 1.4 million light years away from the cluster's X-ray center. The image shows XMM-Newton X-ray in blue.
Further details on [Phys.org web portal](#).



10-Nov-2023

GRAZIELLA BRANDUARDI-RAYMONT

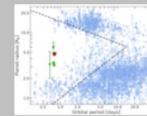
Staff, students and friends of MSSL have paid tributes to Professor Graziella Branduardi-Raymont, who passed away on 3rd November after several weeks in hospital. After obtaining her PhD in X-ray astronomy in 1977, Graziella moved to the Harvard Smithsonian Centre for Astrophysics in the US to work on data coming from NASA's revolutionary new Einstein Observatory, which was the first X-ray astronomy satellite to carry imaging X-ray optics. Notably, the first high-resolution X-ray image of the Perseus cluster of galaxies from Einstein was published in a paper led by Graziella. Graziella's mission involvements included ESA's first X-ray observatory, Exosat, the German-UK-US observatory, Rosat and ESA's XMM-Newton.
Further details on [UCL web portal](#).



30-Oct-2023

AN EXO-NEPTUNE BEAT THE ODDS AND KEPT ITS ATMOSPHERE

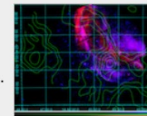
As planet-hunting scientists find more and more planets, they've encountered some puzzles. One of them concerns the lack of Neptune-size worlds orbiting close to their stars. Astronomers think that these planets aren't massive enough to retain their atmospheres in the face of their stars' powerful radiation, which strips it away. The answer must lie in the star itself, since there's nothing a planet this size can do to shield itself. It's directly in the path of its star's powerful output with nothing to shield it. To examine the star more closely, the researchers behind this study used XMM-Newton.
Further details on [Universe Today web portal](#).



25-Oct-2023

THE SHOCKING NATURE OF SUPERNOVA REMNANT RCW 86

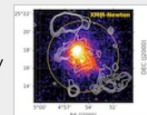
To study the effects of the environment on supernova remnant evolution, the authors made use of an observation of RCW 86 from the X-ray space telescope XMM-Newton. The observation was conducted in 2014, and collected photons across two energy bands, namely the red (0.5 - 2.0 keV) and blue (2.0 - 8.0 keV) bands.
Further details on [Astrobites web portal](#).



12-Oct-2023

EUROPEAN ASTRONOMERS EXPLORE GALAXY CLUSTER G113

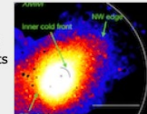
A group of astronomers led by Maria Giulia Campitiello of the University of Bologna in Italy, decided to change this. They investigated G113 in X-rays as part of the Cluster HERitage project with XMM-Newton: Mass Assembly and Thermodynamics at the Endpoint of structure formation (CHEX-MATE). Their study was complemented by images from the LOFAR Two-meter Sky Survey-Data release 2 (LoTSS-DR2).
Further details on [Phys.org web portal](#).



12-Sep-2023

TWO LARGE COLD FRONTS DETECTED IN THE GALAXY CLUSTER ABELL 3558

Astronomers from the University of Alabama in Huntsville have investigated the galaxy cluster Abell 3558 using ESA's XMM-Newton spacecraft. In their results, they detected two large-scale sloshing cold fronts in the outskirts of this cluster. The finding was reported in a paper published August 30 on the pre-print server arXiv.
Further details on [Phys.org web portal](#).



→ THE EUROPEAN SPACE AGENCY

Public Outreach II

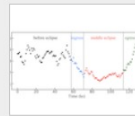


28-Aug-2023

ASTRONOMERS REVEAL MARVELLOUS ECLIPSING ABSORBER IN ACTIVE GALAXY NGC 6814

A research team led by Prof. WANG Junxian and PhD students KANG Jialai from University of Science and Technology of China (USTC) of the Chinese Academy of Science (CAS) has revealed a marvellous, composite eclipsing absorber responsible for a highly distinct X-ray eclipse event in active galaxy NGC 6814 observed with XMM-Newton. The paper, titled as "What can be learnt from a highly informative X-ray occultation event in NGC 6814? A marvellous absorber" was published by Monthly Notices of the Royal Astronomical Society on August 23. This information is also available at: <https://phys.org/news/2023-08-astronomers-reveal-eclipsing-absorber-galaxy.html>

Further details here on [University of Science and Technology of China](#) and [Phys.org](#) web portal.

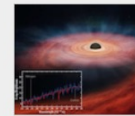


22-Aug-2023

ASTRONOMERS DISCOVER A NEW TYPE OF STELLAR OBJECT HIDING IN PLAIN SIGHT

Astronomers have made a thorough forensic study of a star that was torn apart when it ventured too close to a giant black hole and then had its insides tossed out into space. NASA's Chandra X-ray Observatory and ESA's XMM-Newton studied the amount of nitrogen and carbon near a black hole known to have torn apart a star. Astronomers think these elements were created inside the star before it was ripped apart as it neared the black hole.

Further details on [Phys.org](#) web portal.



17-Aug-2023

XMM-NEWTON 23RD ANNOUNCEMENT OF OPPORTUNITY (AO-23)

The XMM-Newton Twenty-third Announcement of Opportunity is now open and observing proposals may be submitted.

The deadline is **6 October 2023, 12:00 UT**

Further details here on our [XMM-Newton SOC](#) web portal.



19-Jul-2023

ASTRONOMERS DISCOVER A NEW TYPE OF STELLAR OBJECT HIDING IN PLAIN SIGHT

The object could be an ultra-long period magnetar, a rare type of neutron star with extremely strong magnetic fields that can produce powerful bursts of energy, but also a magnetic white dwarf, the old phase of a Sun-like star. ICE-CSIC researchers Nanda Rea and Francesco Coti Zelati led follow-up observations of this new object using the Gran Telescopio CANARIAS (GTC), the world's largest optical telescope located in La Palma (Canary Islands, Spain), along with ESA's XMM-Newton X-ray telescope, and coordinated the physical interpretation of the results.

Further details on [ICE-CSIC](#) web portal.



19-Jun-2023

WHITE DWARF PULSAR DISCOVERY CONFIRMS NEW CLASS OF STAR

The discovery of a new "pulsing" binary star system has shed new light on the evolution of stars while confirming a new exotic class of stellar object: the white dwarf pulsar. The follow-up investigation with the ESA satellite XMM-Newton revealed the pulsations in the high-energy X-ray regime, thus confirming the unusual nature of the new object and firmly establishing the white dwarf pulsars as a new class.

Further details on [Interesting Engineering](#) web portal.

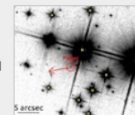


10-Jun-2023

ASTRONOMERS INVESTIGATE THE PROPERTIES OF A NEARBY PULSAR

Using the XMM-Newton satellite and the Hubble Space Telescope (HST), astronomers have conducted X-ray and near-infrared observations of a nearby middle-aged pulsar known as PSR B1055-52. Results of the observational campaign, published on the arXiv preprint server, deliver essential information regarding the properties of this pulsar.

Further details on [Phys.org](#) web portal.



22-May-2023

AN X-RAY LOOK AT THE HEART OF POWERFUL QUASARS

Researchers have observed the X-ray emission of the most luminous quasar seen in the last 9 billion years of cosmic history, known as SMSS J114447.77-430859.3, or J1144 for short. The new perspective sheds light on the inner workings of quasars and how they interact with their environment. For this study, researchers combined observations from several space-based observatories: the eROSITA instrument on board the Spectrum-Roentgen-Gamma (SRG) observatory, the ESA XMM-Newton observatory...

Further details on [Phys.org](#) web portal.

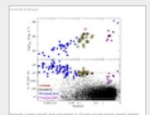


4-May-2023

THE ULTRA-FAST SPACE WINDS THAT SHAPE THE EVOLUTION OF GALAXIES

The research project is called SUBWAYS (Super massive Black hole Winds in the x-RAYS) and the first results have been published in two papers in Astronomy & Astrophysics. The first of these, led by scholars from the University of Bologna and INAF, is mainly based on data obtained from ESA's XMM-Newton space telescope.

Further details on [Phys.org](#) web portal.



12-Apr-2023

SCIENTISTS MAP GUSTY WINDS IN A FAR-OFF NEUTRON STAR SYSTEM

MIT astronomers mapped the "disk winds" associated with the accretion disk around Hercules X-1, a system in which a neutron star is drawing material away from a sun-like star, represented as the teal sphere. The findings may offer clues to how supermassive black holes shape entire galaxies.

Further details on [Physics MIT](#) web portal.

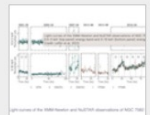


10-Apr-2023

ASTRONOMERS INVESTIGATE X-RAY SPECTRAL VARIABILITY OF ACTIVE GALAXY NGC 7582

Using ESA's XMM-Newton and NASA's NuSTAR space telescopes, astronomers have observed a nearby active galaxy known as NGC 7582. Results of the observational campaign, published March 30 on the arXiv pre-print server, shed more light on the X-ray spectral variability of NGC 7582's active galactic nucleus (AGN).

Further details on [Phys.org](#) web portal.



Symposium: X-Ray Universe 2023

THE X-RAY UNIVERSE 2023

13-16 June 2023

Athens, Greece

A conference organized by the XMM-Newton Science Operations Centre

- ❑ Chairperson of Scientific Organizing Committee: Prof. Rudy Wijndands
- ❑ 270 requests for talks
- ❑ & 40 for poster
- ❑ 220 requests for talks accepted
- ❑ 307 participants
- ❑ of which 30 connected remotely
- ❑ of which 76 paid reduced conference fee
- ❑ remote system performance and associated technical support was outstanding albeit 150 Euro per participant



THE X-RAY UNIVERSE 2023

13-16 June 2023

Athens, Greece

SOC

Aya Bamba, University of Tokyo, Japan
Didier Barret, Institut de Recherche en Astrophysique et Planétologie, Toulouse, France
Stefano Bianchi, Università degli Studi Roma Tre, Italy
Andrea Comastri, INAF Osservatorio di Astronomia e Scienze dello Spazio, Bologna, Italy
Anne Decourthille, Commissariat à l'Énergie Atomique Saclay, Gif sur Yvette, France
Maria Diaz Trigo, European Southern Observatory, Garching, Germany
Megan Donahue, Michigan State University, East Lansing, USA
Chris Done, University of Durham, United Kingdom
Christine Jones, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA, USA
Ioannis Georgantopoulos, National Observatory of Athens, Greece
Richard Griffiths, University of Hawaii, Hilo, USA
Jimmy Irwin, University of Alabama, Tuscaloosa, USA
Jelle Kaastra, SRON Netherlands Institute for Space Research, Leiden & Leiden University, NL
Stefanie Komossa, Max-Planck-Institut fuer Radioastronomie, Bonn, Germany
Antonio Maggio, INAF Osservatorio Astronomico di Palermo, Italy
Miguel Mas Hesse, Centro de Astrobiología, Villanueva de la Cañada, Spain
Richard Mushotzky, University of Maryland, College Park, USA
Paul Nandra, Max-Planck-Institut für extraterrestrische Physik, Garching, Germany
Lida Oskinova, University of Potsdam, Germany
Jossif Papadakis, University of Crete, Heraklion, Greece
Katja Poppenhaeger, Leibniz-Institut für Astrophysik Potsdam, Germany
Gregor Rauw, Université de Liège, Belgium
Nanda Rea, Institute of Space Sciences (CSIC-IEEC), Barcelona, Spain
Kathy Rømer, University of Sussex, Brighton, UK
María Santos-Liñ, European Space Agency, Villanueva de la Cañada, Spain
Craig Sarazin, University of Virginia, Charlottesville, USA
Manami Sasaki, University of Erlangen-Nürnberg, Germany
Norbert Scharrel (co-chair), European Space Agency, Villanueva de la Cañada, Spain
Jürgen Schmitt, Hamburger Sternwarte, Germany
Martin Ward, University of Durham, United Kingdom
Michael Watson, University of Leicester, United Kingdom
Natalie Webb, Institut de Recherche en Astrophysique et Planétologie, Toulouse, France
Rudy Wijndands (chair), University of Amsterdam, The Netherlands

Topics:

Stars, White Dwarfs, & Solar System
Exoplanets and their Host Stars
White Dwarf Binaries, Neutron Star and
Black Hole Binaries, & ULXs
Supernovae, SNRs, Isolated Neutron Stars,
& Diffuse Emission
Galaxies & Galactic Surveys
Active Galactic Nuclei
Groups of Galaxies, Clusters of Galaxies,
& Superclusters
Cosmology & Extragalactic Deep Fields
Current & Future Missions

LOC

Thanasis Akylas
Luca Ballo
Ignacio de la Calle
Jacobo Ebrero
Felix Fürst (chair)
Ioannis Georgantopoulos
Aitor Ibarra
Elena Jiménez Bailon
Celia Sánchez
Richard Saxton
Norbert Scharrel
Martin Stuhlinger
Ivan Valtchanov



<http://xrayuniverse.esa.int>

Workshop 2024

XMM-NEWTON 2024 SCIENCE WORKSHOP

THE X-RAY MYSTERIES OF NEUTRON STARS AND WHITE DWARFS

5-7 June 2024

European Space Astronomy Centre (ESAC)
Villafranca del Castillo
Madrid, Spain

- ❑ Chairperson of Scientific Organizing Committee:
Prof. Nanda Rea
- ❑ 220 requests for talks
- ❑ 20 for poster
- ❑ 43 talks accepted
- ❑ 213 registrations (of which 35 are online)



THE X-RAY MYSTERIES OF NEUTRON STARS AND WHITE DWARFS

Topics

Radio pulsars and isolated neutron stars
Magnetars
Magnetic field evolution and neutron star cooling
Recycled and transitional pulsars
Accretion on compact objects: neutron stars
and white dwarfs
Thermonuclear explosions: X-ray bursts and novae
Ultra luminous X-ray sources
Population studies

5-7 June 2024
ESAC/ESA
XMM-Newton Workshop 2024

LOC

Lucia Bailo
Ignacio de la Calle
Jacobo Ebrero (chair)
Cristina Hernández
Aitor Ibarra
Elena Jiménez-Bailón
Jari Kajava
José López Miralles (co-chair)
Richard Saxton
Norbert Schartel

SOC

Domitilla de Martino
Emma de Oña Wilhelmi
Nathalie Degenaar
Tiziana Di Salvo
Ileyk El Mellah
Margarita Hernanz
Manuel Linares
Scott M. Ransom
Nanda Rea (chair)
Alicia Rouco Escorial
Samar Safi-Harb
Simone Scaringi
Norbert Schartel (co-chair)
Anna Watts
Natalie Webb

Istituto Nazionale di Astrofisica, Naples, Italy
Deutsches Elektronen-Synchrotron, Zeuthen, Germany
University of Amsterdam, The Netherlands
Università degli Studi di Palermo, Italy
Universidad de Santiago de Chile, Chile
Institute of Space Sciences (ICE-CSIC, IEEC), Barcelona, Spain
Norwegian University of Science and Technology, Trondheim, Norway
National Radio Astronomy Observatory, Charlottesville, USA
Institute of Space Sciences (ICE-CSIC, IEEC), Barcelona, Spain
European Space Agency, Villanueva de la Cañada, Spain
University of Manitoba, Winnipeg, Canada
Durham University, UK
European Space Agency, Villanueva de la Cañada, Spain
University of Amsterdam, The Netherlands
Institut de Recherche en Astrophysique et Planétologie,
Toulouse, France



<https://www.cosmos.esa.int/web/xmm-newton/2024-workshop>

Recommendation 2023-05-11/17: The UG recommends that OTAC panel members be systematically informed of potential biases upstream of the evaluation process, in order to raise their awareness.

Intensive discussions with OTAC chairpersons November 2023:

- ❖ OTAC will be asked to reflect about unconscious biases before the panel meeting starts
 - ❖ Video about unconscious biases: <https://www.youtube.com/watch?v=dVp9Z5k0dEE>
 - ❖ Code of conduct
 - ❖ Point to publication (XMM-Newton section on gender and PhD age)
<https://ui.adsabs.harvard.edu/abs/2024arXiv240214075P/abstract>

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Gender, Age & Biases III



ESA Science Programme Missions: Contributions and Exploitation -- XMM-Newton Observing Time Proposals

Show affiliations

Parmar, Arvind N. ; Schartel, Norbert ; Santos Leo, Maria

We examine the outcomes of the regular announcements of observing opportunities for ESA's X-ray observatory XMM-Newton issued between 2001 and 2021. We investigate how success rates vary with the lead proposer's gender, academic age and the country where the proposer's institute is located. The large number of proposals (10,579) and more than 20 years operational lifetime enable the evolution of community proposing for XMM-Newton to be probed. We determine proposal success rates for high-priority and all proposals using both the numbers of accepted proposals and the amounts of awarded observing time. We find that male lead proposers are between 5--15% more successful than their female counterparts in obtaining XMM-Newton observations. The gender balance and the percentage of successful young proposers are comparable to those of HST after the introduction of dual-anonymous reviewing of HST proposals. We investigate potential correlations between the female-led proposal success rates and the amount of female participation in the Time Allocation Committee. We propose additional investigations to better understand the outcomes presented here.

Publication: eprint arXiv:2402.14075

Pub Date: February 2024

DOI: [10.48550/arXiv.2402.14075](https://doi.org/10.48550/arXiv.2402.14075)

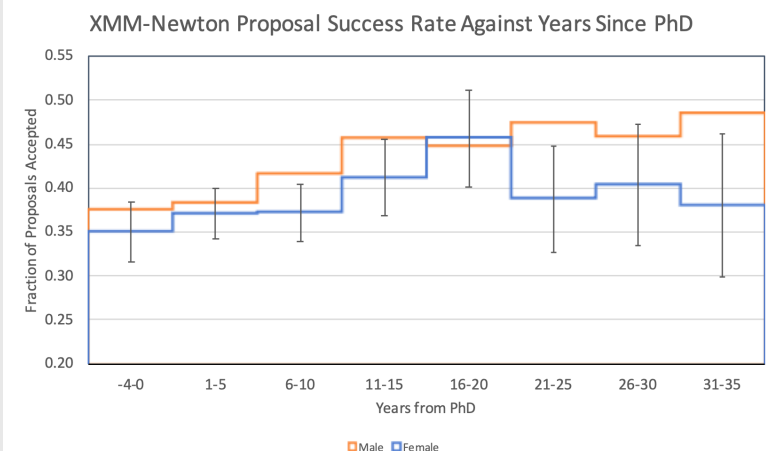
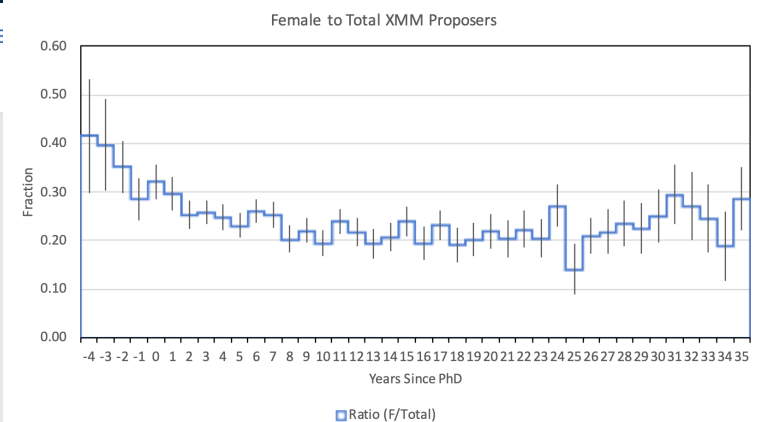
arXiv: [arXiv:2402.14075](https://arxiv.org/abs/2402.14075)

Bibcode: [2024arXiv240214075P](https://arxiv.org/abs/2402.14075)

Keywords: Astrophysics - Instrumentation and Methods for Astrophysics

E-Print Comments: To be submitted to Springer for publication in the ISSI Scientific Reports series. arXiv admin note: substantial text overlap with arXiv:2402.13298

FULL TEXT
Preprint



25



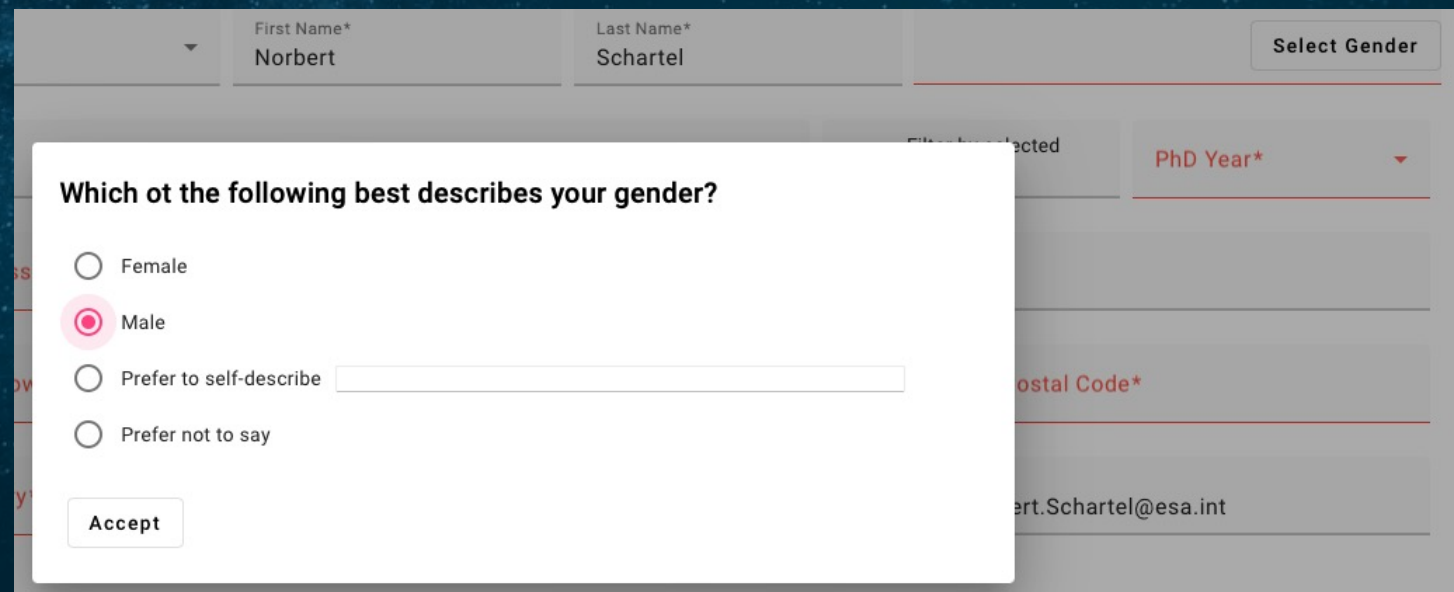
→ THE EUROPEAN SPACE AGENCY

Gender, Age & Biases IV

Recommendation 2023-05-11/18: The UG recommends systematic monitoring of gender and age balance in XMM-Newton proposals. To this end, the UG recommends requesting additional personal data (year of PhD and gender of principal investigator) in the AO proposal form.

Requested:

- ❖ PIs will be asked for
 - ❖ gender
 - ❖ PhD date
- ❖ Gender & PhD date will not be part of the proposal pdf nor given to OTAC



The screenshot shows a web form for the XMM-Newton proposal system. At the top, there are fields for 'First Name*' (Norbert) and 'Last Name*' (Schartel), followed by a 'Select Gender' button. Below these fields, a modal dialog box is displayed with the title 'Which of the following best describes your gender?'. The dialog contains four radio button options: 'Female', 'Male' (which is selected), 'Prefer to self-describe' (with an adjacent text input field), and 'Prefer not to say'. An 'Accept' button is located at the bottom of the dialog. In the background, other form fields are visible, including 'PhD Year*' and 'Postal Code*'. The email address 'ert.Schartel@esa.int' is partially visible at the bottom right of the form.

Gender, Age & Biases IV

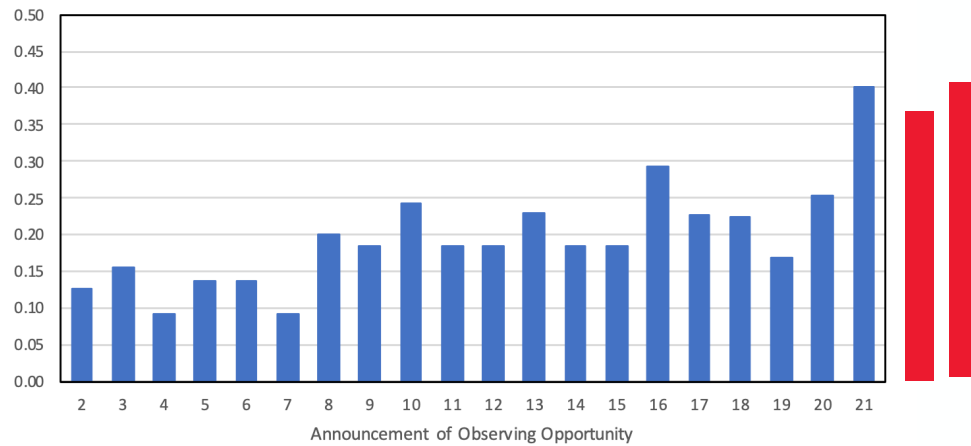
Table 1 XMM-Newton AO summary. The numbers of OTAC members include panel chairs.

AO	Year Issued	No. of Proposals	Over-subscription (Time)	OTAC Members		OTAC Panel Chairs	
				Male	Female	Male	Female
2	2001	869	9.5	41	6	13	2
3	2003	692	7.6	59	11	12	2
4	2004	660	7.0	58	6	12	1
5	2005	641	7.4	56	9	13	0
6	2006	594	6.9	56	9	13	0
7	2007	586	7.8	59	6	12	1
8	2008	555	7.5	52	13	10	3
9	2009	539	7.7	53	12	12	1
10	2010	491	6.2	53	17	13	1
11	2011	501	6.7	57	13	12	2
12	2012	475	5.9	53	12	12	1
13	2013	452	5.4	50	15	11	2
14	2014	431	5.7	53	12	12	1
15	2015	431	5.6	53	12	10	3
16	2016	442	6.3	46	19	10	3
17	2017	441	6.4	51	15	8	5
18	2018	442	7.7	48	14	7	6
19	2019	462	7.7	54	11	8	5
20	2020	447	6.9	47	16	7	5
21	2021	428	6.8	33	22	6	5

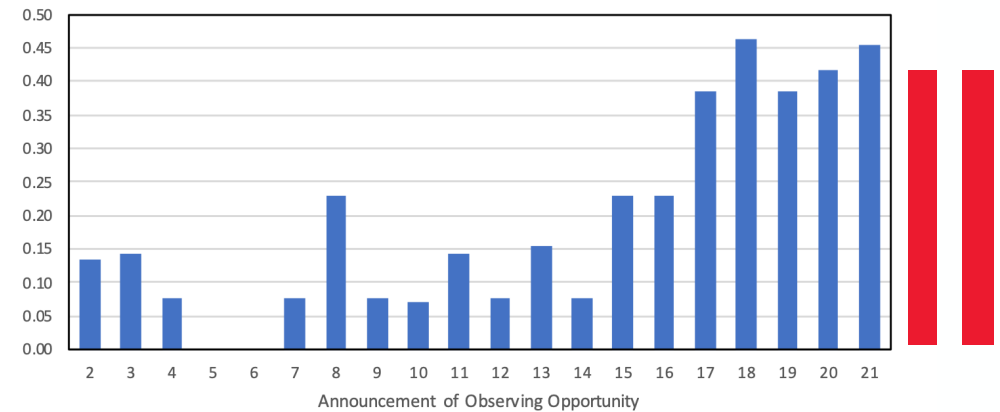
22	2022			35	20	7	5
23	2023			36	27	7	5

Gender, Age & Biases IV

Fraction of Female XMM-Newton OTAC Panel Members



Fraction of Female XMM-Newton OTAC Panel Chairs



Mission Extension



- ☐ Mission extension scheme is changed from 2 + 2 years to 3 + 3 years
- ☐ plus 1 year to synchronize the mission extensions with the minister meetings

- ☐ XMM-Newton:
 - ☐ Approved for 2023 and 2026
 - ☐ Tentative approval for 2027 – 2029

From last extension I expect that the extension case is due in spring 2025.
In any case I would intend to prepare it.

ESA/SPC(2023)5,REV.1
Paris, 4 April 2023
(Original: English)

EUROPEAN SPACE AGENCY

SCIENCE PROGRAMME COMMITTEE

Extensions of mission operations for the period 2023–2029

Summary

This paper proposes the extension of the operations of scientifically productive missions in orbit. Confirmation of the operations of seven missions (Gaia, Hinode*¹, HST*, IRIS*, SOHO*, XMM-Newton and CHEOPS*) for 2023–2026 is proposed, together with indicative extension of the operations of five missions (Hinode*, HST*, IRIS*, XMM-Newton and CHEOPS*) for 2027–2029.

