Report from the Project Scientist

XMM-Newton Users' Group Meeting XX

7 May 2019

ESAC, Madrid, Spain

Norbert Schartel

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AO 18 I

Submission Statistics for AO18

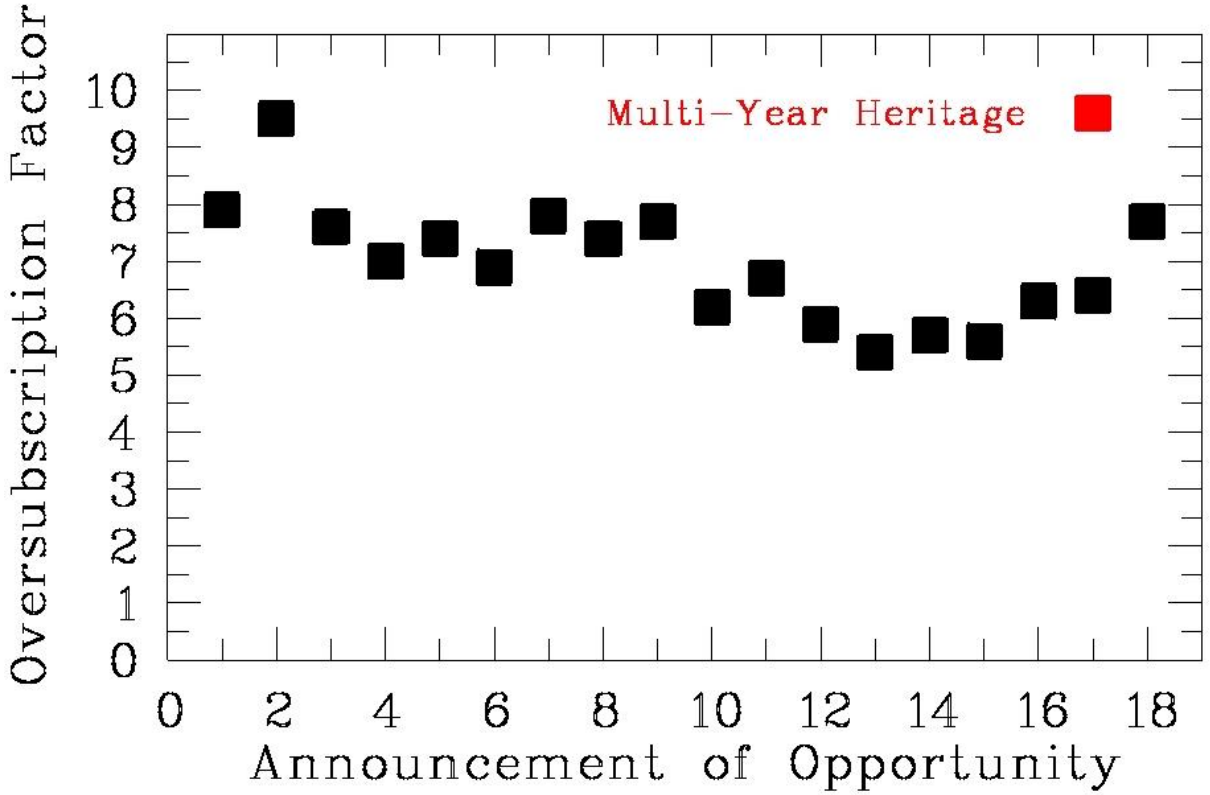
Nr. of proposals received:	442
Nr. of PI's	328
Nr. of Co-I's per proposal	6
Nr. of PI's+Co-I's (email)	1672
Nr. of PI's+Co-I's (surname)	1394
Nr. of countries participating	40
Nr. of Observations	2102
Nr. of Pointings	3158
Nr. of targets	1739
Nr. of Obs. per Proposal	4.8
Nr. of Pointings per Proposal	7.1
Total Req. Time (ks)	92943
Average Req. Time per proposal (ks)	210.3
Average Req. Time per pointing (ks)	38.0
Average Req. Time per observation (ks)	44.2

AO 18 II

Statistics by Country

Country	Nr. of proposals	Req. Time (ks)
UNITED STATES	167	37410
UNITED KINGDOM	38	12855
ITALY	50	12284
GERMANY	58	9639
ESA	16	4071
FRANCE	15	3825
BELGIUM	10	1518
CHINA	12	1329
MEXICO	3	1199
CHILE	6	911
NETHERLANDS	10	897
JAPAN	6	819
POLAND	4	671
INDIA	5	585
CANADA	5	521
SPAIN	7	510
SWITZERLAND	3	493
TAIWAN	4	
TURKEY	3	
ARGENTINA	2	
ISRAEL	1	
CZECH REPUBLIC	2	
HUNGARY	1	
IRELAND	1	
SWEDEN	2	
RUSSIA	2	
KOREA	2	
FINLAND	3	
MALAYSIA	1	
SLOVAKIA	1	
UNITED ARAB EMIRATES	1	
BULGARIA	1	

AO18 III


Oversubscription Factor
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Multi-Year Heritage
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18
Announcement of Opportunity

AO 18 IV

Statistics by Proposal Type

Proposal Type	Nr. of proposals (Large Program)	Total Time (ks) (Large Program)
Guest Observer	373 (56)	78525 (39278)
Target of Opportunity (anticipated)	54 (5)	10680 (4359)
Fulfil	15 (0)	3738 (0)

From 2018 // Outcome of Workshop: Structural Points I

1. Increased importance of Target of Opportunity observations
2. Increased importance of (simultaneous) multi-wavelength /multi-messenger observations
3. Importance if very large project (>2 Ms)

From 2018 // Outcome of Workshop: Structural Points IV

- Increased importance of (simultaneous) multi-wavelength /multi-messenger observations
  - Chandra (**+LP 300ks -> 1Ms**)
  - Radio (**NRAO**)
  - Alma (no joint programs)
  - JWST (from 2 JWST AO ← HST heritage)
  - CTA (**← Magic & HESS**)
  - ESO 30m (← ESO VLT(I) heritage, Athena preparation)
  - SKA (**<- NRAO**, MeerKat?)

AO 18 V

Statistics on Joint observations (255 observations in 100 proposals)

	Nr. of Prop.	Nr. of obs	Time/Orbits
Chandra	13 (11)	30	1213.0
HST	19 (13)	46	108.0
VLT	6	22	80.0
Swift	15	33	826.0
NuSTAR	57 (69)	144	9730.0
INTEGRAL	0 (9)	0	None
MAGIC	0 (13)	0	None
HESS	0 (6)	0	None
NRAO	6 (0)	18	47.6

AO 18 VI

Categories Distribution

Category	Nr. of Proposals (Large Programs)	Nr. of Observations (Large Programs)	Total Time Req. (ks) (Large Programs)
A	69 (11)	381 (155)	11826 (5864)
B	98 (5)	374 (23)	14352 (2991)
C	56 (8)	196 (101)	11830 (6218)
E	138 (18)	494 (150)	29812 (12624)
F	76 (15)	592 (297)	17936 (8959)
G	5 (4)	65 (63)	7187 (6981)
	442 (61)	2102 (789)	92943 (43637)

Category	Science	*Category*	Science
A	**Stars**	**E**	**AGN**
B	**Binaries**	**F**	**Galaxies & Clusters**
C	**SN & Pulsars**	**G**	**Cosmology**

AO 18 VII / Large Programmes

084281	18	Dunn	Is X-ray Aurora Produced by Magnetic Unloading?	4	532	LP	0	Planets
084389	18	Boehringer	Probing the outburst history and precessing jet in Hydra A	3	330	LP	0	Clusters of Galaxies
084526	18	Piro	OBSERVING THE GRAVITATIONAL WAVE SKY WITH XMM-NEWTON	13	716	LP	0	Neutron Stars
084148	18	Brusa	Shedding "X-ray" light on Supermassive Black Holes winds	19	1582	LP	0	AGN / Black Hole
084058	18	Fabian	Velocity dispersion of the ICM in 3 Disturbed X-ray luminous cool core clusters	4	480	LP	0	Clusters of Galaxies
084486	18	Pinto	High-resolution view of high mass accretion to understand black holes growth	7	716	LP	0	Neutron Stars
084276	18	Kara	Simultaneous Disc and Corona Reverberation Mapping in AGN Mrk 335	4	452	LP	0	AGN / Black Hole
084055	18	Lusso	Constraining the energy budget of quasars in the MUSE Ultra Deep Field	20	1377	LP	0	AGN / Black Hole (Priority C)

AO 19 Preparation

- Planned key milestones (public since 10 January 2019, XMM-Newton Newsletter#217 & SOC web-pages):
  - Announcement: 20 August 2019
  - Due date for proposals: 11 October 2019 (12:00 UT)
  - Final approved programme: mid December 2019
  - Second phase submission: 8 – 31 January 2020
  - Start of observations: 1 May 2020
- 6 Scientific categories / 13 Panels in total / 66 scientists
- OTAC chairperson: Prof. Peter Schneider, University Bonn, Germany
- OTAC panel chairpersons are asked not to participate on new LP

TOO & DDT I

Rev	Observation Id	Target	RA	Dec	Exp. Time (ksec)	Data Status	ODF Data when available	PPS Data when available	Comments
3543	0831791701	Swift J1858.6-0814	18:58:34.90	-08:14:14.9	46.2	ToO (TBD)	ODF Data	PPS Data	(Dr. D. Altamirano)
3539	0822041101	AT2019azh	08:13:16.97	+22:38:54.0	18.0	DPS (TBD)	ODF Data	PPS Data	(Dr. S. Gezari)
3539	0822040401	AT 2018zr	07:56:54.55	+34:15:43.6	18.0	DPS (TBD)	ODF Data	PPS Data	(Dr. S. Gezari)
3537	0851180101	Swift J1728.9-3613	17:28:58.64	-36:14:37.7	33.6	ToO (TBD)	ODF Data	PPS Data	(Dr. J. Miller)
3532	0831791401	4U 1728-34	17:31:57.73	-33:50:02.5	28.5	ToO (29-Sep-2019)	ODF Data	PPS Data	(Dr. Vincentelli)
3532	0831791301	G358.931-0.030	17:43:10.00	-29:51:45.8	29.9	ToO (01-Oct-2019)	ODF Data	PPS Data	(Dr. Y. Tsuboi)
3532	0831791201	Swift J1858.6-0814	18:58:34.90	-08:14:14.9	59.4	ToO (01-Oct-2019)	ODF Data	PPS Data	(Dr. D. Altamirano)
3530	0822041001	ZTF19aabbnzo	07:03:18.70	+23:01:45.0	18.0	DPS (TBD)	ODF Data	PPS Data	(Dr. S. Gezari)
3522	0831790801	RT Cru	12:34:53.74	-64:33:56.0	58.8	ToO (07-Sep-2019)	ODF Data	PPS Data	(Dr. G.Luna)
3521	0831791001	ASASSN-19bt	07:00:11.30	-66:02:25.8	41.4	ToO (07-Sep-2019)	ODF Data	PPS Data	(Dr. K. Auchettl)
3517	0831790901	Sco X-1	16:19:55.07	-15:38:25.0	101.1	ToO (27-Aug-2019)	ODF Data	PPS Data	(Dr. S. Motta)
3506	0832000101	C2018 Y1 Iwamoto	13:15:00.00	-15:02:37.0	45.3	ToO (04-Aug-2019)	ODF Data	PPS Data	(Dr. K. Dennerl)
3503	0729161201	GRB190114C	03:38:01.63	-26:56:48.1	47.8	ToO (29-Jul-2019)	ODF Data	PPS Data	(Dr. S. Campana)
3499	0831790701	GSN 069	01:19:08.60	-34:11:30.5	141.4	ToO (21-Jul-2019)	ODF Data	PPS Data	(Dr. G. Minuitti)
3498	0729161101	GRB190114C	03:38:01.63	-26:56:48.1	55.0	ToO (Public)	ODF Data	PPS Data	(Dr. N. Schartel)
3495	0831790601	Mrk 335	00:06:19.50	+20:12:10.5	117.8	ToO (15-Jul-2019)	ODF Data	PPS Data	(Dr. M. Parker)
3493	0831790501	Mrk 1310	12:01:14.40	-03:40:41.1	27.4	ToO (10-Jul-2019)	ODF Data	PPS Data	(Dr. B. Luo)
3483	0831790401	ASASSN-18fv	10:36:15.46	-59:35:53.6	51.9	ToO (22-Jun-2019)	ODF Data	PPS Data	(Dr. K. Sokolovsky)

TOO & DDT II

Rev	Observation Id	Target	RA	Dec	Exp. Time (ksec)	Data Status	ODF Data when available	PPS Data when available	Comments
3481	0831790301	1ES 1927+654	19:27:19.54	+65:33:54.0	59.3	ToO (16-Jun-2019)	ODF Data	PPS Data	(Dr. E. Kara)
3480	0831790201	AT2018fyk	22:50:16.06	-44:51:52.4	33.0	ToO (14-Jun-2019)	ODF Data	PPS Data	(Dr. D.J. Pasham)
3471	0831790101	Swift J005139.2-7217	00:51:39.20	-72:17:04.0	22.0	ToO (29-May-2019)	ODF Data	PPS Data	(Dr. F. Haberl)
3468	0830192001	Gaia17bpi	19:31:05.60	+18:27:52.0	57.6	ToO (22-May-2019)	ODF Data	PPS Data	(Dr. M. Kuhn)
3447	0830191901	MAXI J1820+070	18:20:21.93	+07:11:07.1	23.9	ToO (09-Apr-2019)	ODF Data	PPS Data	(Dr. T. Maccarone)
3425	0830191801	HD93129A	10:43:57.46	-59:32:51.2	33.1	ToO (Public)	ODF Data	PPS Data	-
3398	0830191001	GW170817	13:09:48.09	-23:22:53.4	119.2	ToO (Public)	ODF Data	PPS Data	-
3395	0830190901	Wasp-107	12:33:32.85	-10:08:46.1	63.0	DPS (Public)	ODF Data	PPS Data	-
3391	0830191601	M51	13:30:00.90	+47:13:44.0	60.0	ToO (Public)	ODF Data	PPS Data	-
3390	0830191501	M51	13:30:00.90	+47:13:44.0	60.0	ToO (Public)	ODF Data	PPS Data	-
3389	0830191301	ASASSN-18jd	22:43:42.88	-16:59:08.4	28.0	ToO (Public)	ODF Data	PPS Data	-
3386	0830191101	1ES 1927+654	19:27:19.50	+65:33:54.0	46.4	ToO (Public)	ODF Data	PPS Data	-
3382	0830191201	ASASSN-18jd	22:43:42.88	-16:59:08.4	25.0	ToO (Public)	ODF Data	PPS Data	-
3381	0830191401	M 51	13:30:00.90	+47:13:44.0	98.0	ToO (Public)	ODF Data	PPS Data	-
3380	0830190801	ch cyg	19:24:33.07	+50:14:29.1	36.1	ToO (Public)	ODF Data	PPS Data	-

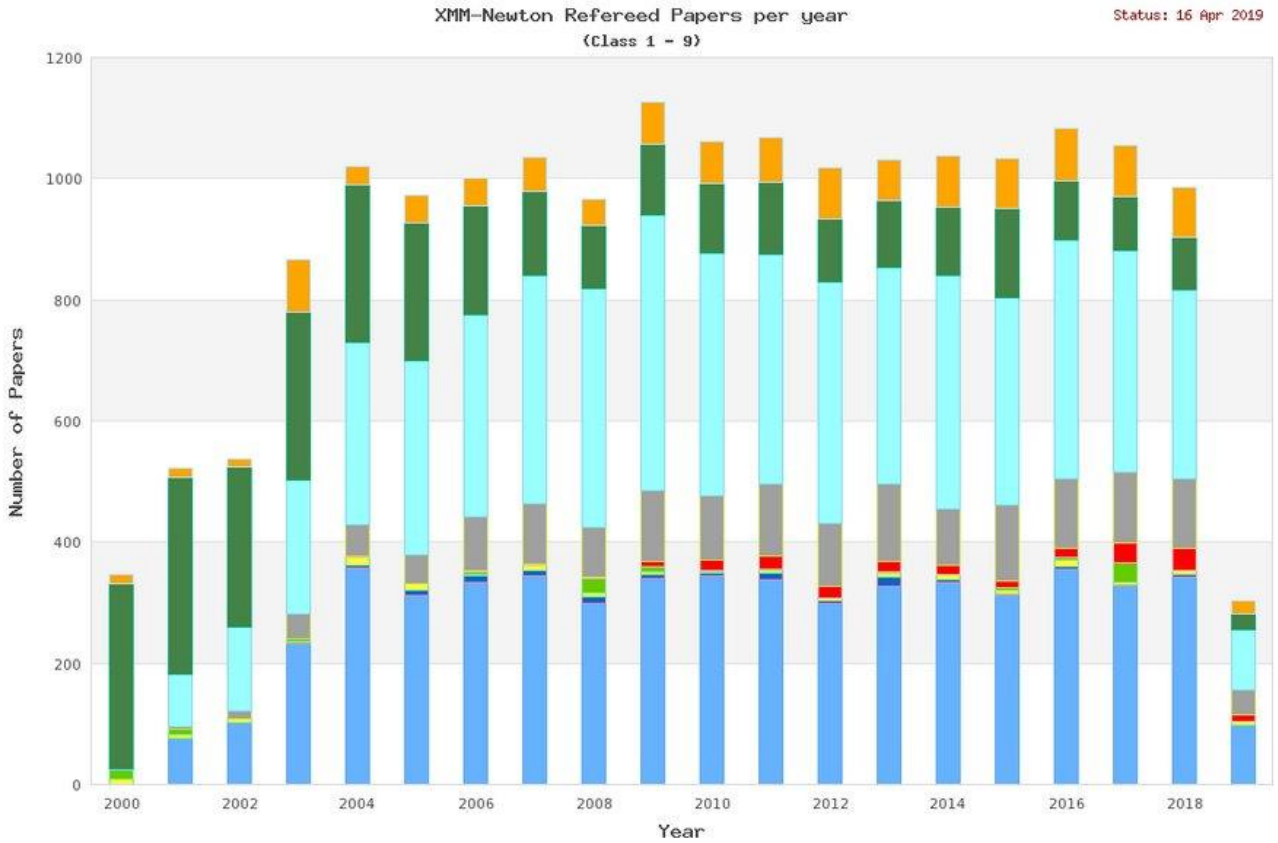
Publications

XMM in Name
Mentions XMM
XMM & Citation

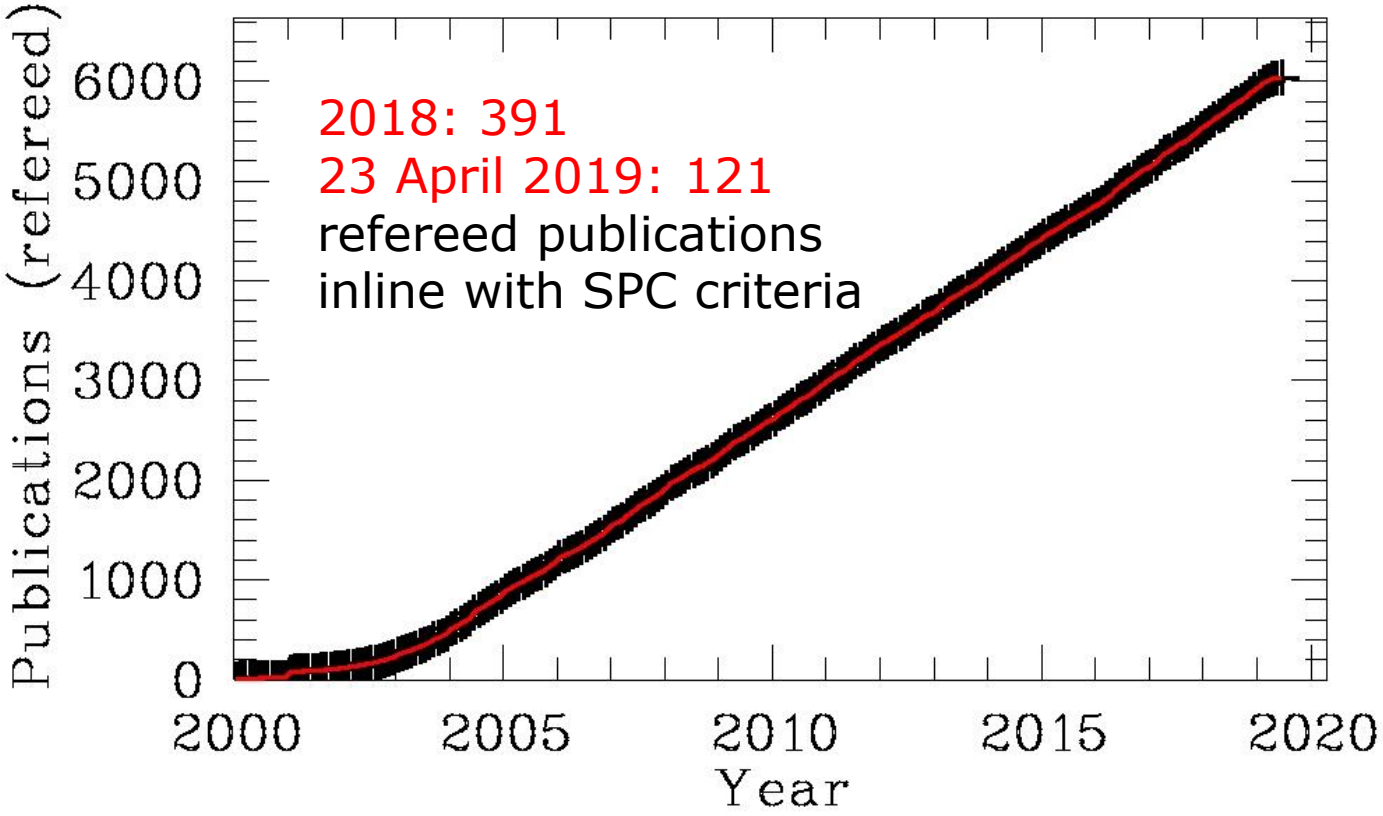
Uses Others

--- SPC ---

Uses Products
Describes
Predicts
Catalogue
Uses Data



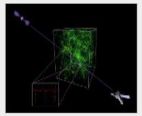
Publications



Public Outreach

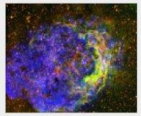
05-Jul-2018:
NEW HORIZONS IN CONFERENCE FACILITIES FOR XMM-NEWTON
XMM-Newton are leading the way in future ways of working, by having introduced a childcare facility option at their international scientific workshop that took place 13-15 June at ESAC.
Further details on our **XMM-Newton SOC** pages.

20-Jun-2018:
XMM-NEWTON FINDS MISSING INTERGALACTIC MATERIAL
After a nearly twenty-year long game of cosmic hide-and-seek, astronomers using ESA's XMM-Newton space observatory have finally found evidence of hot, diffuse gas permeating the cosmos, closing a puzzling gap in the overall budget of 'normal' matter in the Universe.
Further details on **ESA's Space Science** portal.

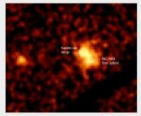


18-Jun-2018:
STAR SHREDDED BY RARE BREED OF BLACK HOLE
ESA's XMM-Newton observatory has discovered the best-ever candidate for a very rare and elusive type of cosmic phenomenon: a medium-weight black hole in the process of tearing apart and feasting on a nearby star.
Further details on **ESA's Space Science** portal.

11-Jun-2018:
STAR-CIRCLING BUBBLE OF GAS
This turbulent celestial palette of purple and yellow shows a bubble of gas named NGC 3199, blown by a star known as WR18 (Wolf-Rayet 18). The image was taken by the European Photon Imaging Camera (EPIC) on ESA's XMM-Newton X-ray space observatory, and marks different patches of gas in different colours.
Further details on **ESA's Space in Images** portal.



31-May-2018:
COSMIC BLAST TAKES REST AT LAST
Last year, the first detection of gravitational waves linked to a gamma-ray burst triggered a vast follow-up campaign to study the aftermath of the neutron star merger that gave rise to the explosion. ESA's XMM-Newton observations, caught the moment when its X-ray emission stopped increasing...
Further details on **ESA's Science and Technology** portal.

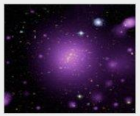


23-May-2018:
MYSTERIOUS MEDIUM-SIZE BLACK HOLES MAY LURK AT THE CENTERS OF SMALL GALAXIES
The hearts of small galaxies may hide a mysterious kind of black hole that has long proved elusive: medium-size black holes. Investigators searched data from the Chandra, XMM-Newton and Swift orbital X-ray observatories.

Further details on **Space.com** portal.

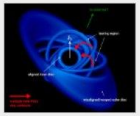
12-Oct-2018:
HISTORY OF X-RAY ASTRONOMY IN EUROPE: FROM EXOSAT TO ATHENA
The history of X-ray astronomy spans no more than a few decades. Observations in this part of the spectrum had to await the 'space era', with rocket launchers that could carry X-ray telescopes above the Earth's atmosphere, opaque to this type of radiation.
Further details on **ESA's Science & Technology** portal.

08-Oct-2018:
HOT X-RAY GLOW FROM MASSIVE CLUSTER OF GALAXIES
Astronomers using ESA's XMM-Newton space observatory have captured the X-ray glow (shown here in purple) emitted by the hot gas that pervades the galaxy cluster XLSSC006.
Further details on **ESA's Space in Images** portal.



04-Oct-2018:
TRACING THE UNIVERSE: X-RAY SURVEY SUPPORTS STANDARD COSMOLOGICAL MODEL
Scanning the sky for X-ray sources, ESA's XMM-Newton X-ray observatory has been busy with the XXL Survey, its largest observational programme to date. The second batch of data from the survey has just been released.
Further details on **ESA's Science & Technology** portal.

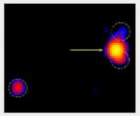
24-Sep-2018:
MATTER FALLING INTO A BLACK HOLE AT 30 PERCENT OF THE SPEED OF LIGHT
A UK team of astronomers report the first detection of matter falling into a black hole at 30% of the speed of light, located in the centre of the billion-light year distant galaxy PG211+143. The team used data from the European Space Agency's X-ray observatory XMM-Newton to observe the black hole.
Further details on the **Royal Astronomical Society** web portal.



21-Aug-2018:
XMM-NEWTON 18TH ANNOUNCEMENT OF OPPORTUNITY (AO-18)
The XMM-Newton Eighteenth Announcement of Opportunity is now open and observing proposals may be submitted.
The deadline is **5 October 2018, 12:00 UT**

Further details here on our **XMM-Newton SOC website**.

10-Aug-2018:
STUDENTS DIGGING INTO DATA ARCHIVE SPOT MYSTERIOUS X-RAY SOURCE
An enigmatic X-ray source revealed as part of a data-mining project for high-school students shows unexplored avenues hidden in the vast archive of ESA's XMM-Newton X-ray Observatory.
Further details on **ESA's Space Science** portal.

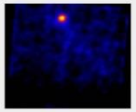


Public Outreach

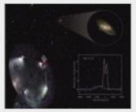
12-Dec-2018:
BUDDING SCIENTISTS TO REACH FOR THE STARS AT THE EUROPEAN SPACE AGENCY
The Irish Research Council has announced today that two Irish scientists have won a national competition to train at the European Space Agency (ESA).
Further details on the **Irish Research Council** web page.

11-Dec-2018:
PROF. RICCARDO GIACCONI (1931 - 2018)
It is with great regret that we have learned of the passing of Prof Riccardo Giacconi on Sunday 9 December. Giacconi received the 2002 Nobel Prize in Physics for his pioneering work in X-ray astronomy and XMM-Newton science and discoveries are part of his legacy to X-ray astronomy.
The XMM-Newton community will always be thankful to Giacconi for his extensive contributions.
Further details on our **XMM-Newton SOC** portal.

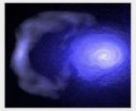
21-Nov-2018:
FROM GAMMA RAYS TO X-RAYS: NEW METHOD PINPOINTS PREVIOUSLY UNNOTICED PULSAR EMISSION
Based on a new theoretical model, a team of scientists explored the rich data archive of ESA's XMM-Newton and NASA's Chandra space observatories to find pulsating X-ray emission from three sources.
Further details on ESA's **Science & Technology** portal.



30-Oct-2018:
INTERNATIONAL TEAM OF RESEARCHERS USES THE LARGE MILLIMETER TELESCOPE TO OBSERVE A POWERFUL MOLECULAR WIND IN AN ACTIVE SPIRAL GALAXY
An international team of astrophysicists using the Large Millimeter Telescope (LMT) in central Mexico has detected an unexpected and powerful outflow of molecular gas in a distant active galaxy similar to the Milky Way.
Further details on the **University of Massachusetts Amherst** portal.

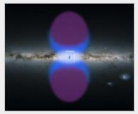


29-Oct-2018:
ANCIENT COLD FRONT IN PERSEUS
A gigantic cold front in the Perseus galaxy cluster has been observed by a trio of X-ray telescopes: NASA's Chandra X-Ray observatory, ESA's XMM-Newton and the German Aerospace Centre-led ROSAT satellite.
Further details on **ESA's Space in Images** portal.

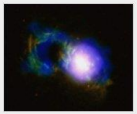


08-Apr-2019:
STARGAZING TECHNOLOGY USED TO SPOT CANCER
Cancer could be detected in patients far earlier by using the same technology used to observe stars millions of miles away, such as ion thrusters and X-ray optics similar to those deployed in ESA's XMM-Newton spacecraft.
Further details on **GOV.UK** pages.

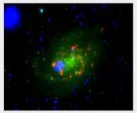
20-Mar-2019:
GIANT 'CHIMNEYS' VENT X-RAYS FROM MILKY WAY'S CORE
By surveying the centre of our Galaxy, ESA's XMM-Newton has discovered two colossal 'chimneys' funneling material from the vicinity of the Milky Way's supermassive black hole into two huge cosmic bubbles.
Further details on ESA's **Space Science** portal.



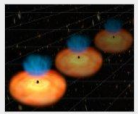
18-Mar-2019:
'TEACUP' QUASAR CAUSES GALACTIC STORMS
SDSS J143029.88+133912.0, nicknamed the 'Teacup' because of its shape, is a quasar powered by a supermassive black hole. New data from NASA's Chandra X-ray Observatory and ESA's XMM-Newton mission provide detailed information about the history of the eruptions of energy and particles produced by the black hole.
Further details on **Sci-News** pages.



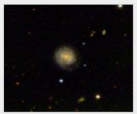
25-Feb-2019:
PAST AND FUTURE GENERATIONS OF STARS IN NGC 300
This swirling palette of colours portrays the life cycle of stars in a spiral galaxy known as NGC 300. The different colours are derived from optical observations performed by MPG/ESO's Wide Field Imager (WFI) telescope at La Silla, Chile; infrared observations made with NASA's Spitzer space telescope; and data collected in X-rays by ESA's XMM-Newton space observatory.
Further details on ESA's **Space in Images** portal.



28-Jan-2019:
ACTIVE GALAXIES POINT TO NEW PHYSICS OF COSMIC EXPANSION
Investigating the history of our cosmos with a large sample of distant 'active' galaxies observed by ESA's XMM-Newton, a team of astronomers found there might be more to the early expansion of the Universe than predicted by the standard model of cosmology.
Further details on ESA's Space Science pages, The New York Times and The Great Courses Plus



10-Jan-2019:
TEAM OF TELESCOPES FINDS X-RAY ENGINE INSIDE MYSTERIOUS SUPERNOVA
ESA's high-energy space telescopes Integral and XMM-Newton have helped to find a source of powerful X-rays at the centre of an unprecedentedly bright and rapidly evolving stellar explosion that suddenly appeared in the sky earlier this year.
Further details on ESA's **Space Science** portal.



XMM-Newton Related Prizes I

Year	Name	Awarded Prize	Awarding Organization
2019	Dr. P. Kosec	Murdin Prize	University of Cambridge, UK
2018	Prof. M. Mendez	Distinguished Service Medal	Committee on Space Research (COSPAR)
2017	Prof. N. Rea	National Award for Young Researchers	Catalonian Foundation for Research and Innovation
2017	Prof. J.M. Miller	Mid-Career Prize	High-Energy Astrophysics Division (HEAD) of the American Astronomical Society
2017	Dr. Yaël Nazé	Paul & Marie Stroobant award	Académie Royale des sciences, des lettres & des beaux-arts, Belgium
2017	Prof. K. Schawinski	MERAC Prize	European Astronomical Society
2016	Dr. A. L. King	Dissertation Prize	High-Energy Astrophysics Division (HEAD) of the American Astronomical Society
2016	Dr. P. Plait	Schramm Award	High-Energy Astrophysics Division (HEAD) of the American Astronomical Society
2016	Prof. J. Trümper	Tycho Brahe Prize	European Astronomical Society
2015	Prof. N. Rea	Young Scientist Prize for Astrophysics	International Union of Pure and Applied Physics
2015	Prof. S. Markoff	VIDI award	The Netherlands Organisation for Scientific Research
2015	Dr E. Costantini	VIDI prize	The Netherlands Organisation for Scientific Research
2014	Prof. N. Rea	Zeldovich Medal	Committee on Space Research (COSPAR) and the Russian Academy of Sciences
2014	Dr. E. Churazov	Massey Award	Committee on Space Research (COSPAR)
2014	Dr. F. Tombesi	Peer Award	NASA Astrophysics Science Division
2014	Dr. F. Tombesi	Early Career Research Scientist Prize for Excellence	Dept. of Astronomy at the University of Maryland
2014	Prof. A. Comastri	Maria Teresa Messori Roncaglia ed Eugenio Mari	Accademia Nazionale dei Lincei, Roma
2014	Dr. N. Zakamska	Pierce Prize	American Astronomical Society
2013	Dr. E. Kara	Murdin Prize	University of Cambridge, UK

XMM-Newton Related Prizes II

Year	Name	Awarded Prize	Awarding Organization
2012	Dr. P. Willmore	Distinguished Service Medal	Committee on Space Research (COSPAR)
2012	Prof. A. Fabian	Gold Medal	Royal Astronomical Society
2011	Dr. J. Gladstone	Dissertation Prize	High-Energy Astrophysics Division (HEAD) of the American Astronomical Society
2011	Prof. D. Porquet	Bronze Medal of CNRS for Young Researcher	Centre National de la Recherche Scientifique / National Centre for Scientific Research in France
2011	Prof C. Forman	Honorary Fellow in the Royal Astronomical Society	Royal Astronomical Society
2010	Dr. V. Sguera	Zeldovich Medal	Committee on Space Research (COSPAR) and the Russian Academy of Sciences
2010	Prof. M. Arnaud	Silver Medal of CNRS	Centre National de la Recherche Scientifique / National Centre for Scientific Research in France
2009	Prof. G. Rauw	Pol & Christiane Swings Prize	Académie Royale des sciences, des lettres & des beaux-arts, Belgium
2008	Prof. P. Henry	Rossi Prize	High-Energy Astrophysics Division (HEAD) of the American Astronomical Society
2007	Dr. A. Hormschemeir	AJ Cannon Award	American Astronomical Society
2007	Dr E. Costantini	VENI prize	The Netherlands Organisation for Scientific Research
2007	Prof. P.G. Jonker	VIDI prize	The Netherlands Organisation for Scientific Research
2006	Dr. B. Gaensler	Pierce Prize	American Astronomical Society
2005	Prof. G. Hasinger	Leibniz Prize	German Research Foundation
2005	Prof. C. Reynolds	Helen B Warner Prize	American Astronomical Society
2004	Dr. P. Willmore	Vikram Sarabhai Medal	Committee on Space Research (COSPAR)
2004	Prof. N. Brandt	Pierce Prize	American Astronomical Society
2003	Prof. D. Barret	Bronze Medal of CNRS for Young Researcher	Centre National de la Recherche Scientifique / National Centre for Scientific Research in France

Workshop 2018

Time-Domain Astronomy: A High Energy View

13 - 15 June 2018

- **Chairperson: Joern Wilms**
- **Childcare offered**
- **Very positive feedback**
- **Very large success**
- **116 Scientists participated**
- **Proceeding will be published in Astronomical Notes**

Workshop 2019

Astrophysics of hot plasma in extended X-ray sources

12 - 14 June 2019

- **Chairperson: Anne Decourchelle**
- **48 requests for oral contributions**
- **12 requests for posters**
- **Proceeding in Astronomical Notes**

Symposium 2020

The X-Ray Universe 2020 / ESLAB

- **25 - 29 May 2020**
- **ESTEC, Noordwijk, The Netherlands**

https://xmm-tools.cosmos.esa.int/external/xmm_news/20th_Anniversary/

HEAD Meeting

Special session on

XMM-Newton

Monterey, CA, USA

17-21 March 2019

X-ray Astronomy

Special lecture about

XMM-Newton mission

Bologna, Italy

8-13 September 2019

"Astrophysics of hot plasma in extended X-ray sources"

XMM-Newton Workshop

ESAC, Madrid, Spain

12-14 June 2019

Celebration Event:

20 years from launch

ESAC, Madrid, Spain

10 December 2019

The X-ray Universe

ESLAB, ESTEC, The Netherlands

25-29 May 2020

If you are organising an event related to XMM-Newton or where XMM-Newton can contribute, please contact us