

Lynx Newsletter

X - R A Y O B S E R V A T O R Y



Volume 2, Number 1 (May 2018)

Editor: Samantha Johnson

Email: lynxtelescope@gmail.com

Visit our [website](#)!

***Lynx* is a large X-ray Observatory that will revolutionize our view of the Universe by providing unique insight into the high-energy drivers that govern its formation and evolution.**

Table of Contents

1. Community Involvement
2. Decadal Interim Report
3. AAS 232nd Meeting
4. SPIE: Astronomical Telescopes and Instrumentation
5. Chandra Science Workshop on Accretion in Stellar Systems
6. Special Section of JATIS Spring 2019
7. Calendar

1-----

Community Involvement

New ideas, fresh perspectives, and objective outside critiques are important to keep Lynx moving forward. Feel free to forward this newsletter to those who might be interested in being a part of this project. With your help, we may see Lynx launch in the 2030s!

Have you mentioned the Lynx mission in a paper or presentation? We want to know! If you feel comfortable sharing, please upload this information to our public [Google Drive](#), or email lynxtelescope@gmail.com.

You can also join the discussion at one of our bi-weekly STDT meetings:

Bi-Weekly STDT Meetings

Wednesdays at 1:30 pm Central
WebEx info can be found [here](#).

2-----

Decadal Interim Report

The Lynx team has submitted their Interim Report to Headquarters for review of the project's current progress. The reports for all four Decadal teams will be available for the public to review at a later date.

3-----

American Astronomical Society 232nd Meeting

The 232nd AAS meeting will be combined with the annual meeting of the AAS Laboratory Astrophysics Division.

Date: June 3-7, 2018

Location: Denver, Colorado

[Registration](#): Registration is currently open. Onsite registration is available from May 1st through June 7th.

[Website for AAS 232nd Meeting](#)

4-----

SPIE: Astronomical Telescopes and Instrumentation

Date: June 10-15, 2018

Location: Austin, Texas

Registration: Early registration discount ends May 25th, housing deadline is May 15th.

[Website for SPIE](#)

This conference will host *sixteen* different Lynx talks, and three sessions including Lynx!

Monday, June 11th Presentations and Sessions:

Session 5: *Decadal Study Overviews: Joint Session with Conferences 10698 and 10699* from 10:30 AM to 12:10 PM

Session Chair: Jim M. Oschmann Jr., Ball Aerospace (USA)

The Lynx x-ray observatory: concept study overview and status

Jessica A. Gaskin, Alexandra Dominguez, Karen Gelmis, John A. Mulqueen, NASA Marshall Space Flight Ctr. (USA); Feryal Ozel, The Univ. of Arizona (USA); Andrew Schnell, Douglas A. Swartz, NASA Marshall Space Flight Ctr. (USA); Alexey Vikhlinin, Smithsonian Astrophysical Observatory (USA) [10699-21]

Lynx Program mirror assembly (LMA) production modeling

Lynn N. Allen, James T. Mooney, Matthew J. East, Harris Corp. (USA); Jonathan W. Arenberg, Northrop Grumman Aerospace Systems (USA); Jessica A. Gaskin, NASA Marshall Space Flight Ctr. (USA). [10698-142]

Development of adjustable x-ray optics for the Lynx mission concept

Paul B. Reid, Harvard-Smithsonian Ctr. for Astrophysics (USA). . . [10699-24]

Tuesday, June 12th Presentations and Sessions:

Session 8: *Optics: Athena + Lynx* from 10:30 AM TO 12:10 PM

Session Chair: Giovanni Pareschi, INAF - Osservatorio Astronomico di Brera (Italy)

***Lynx* optics based on full monolithic shells: design and development**

Marta M. Civitani, Stefano Basso, Mauro Ghigo, Joanna Holyszko, Giovanni Pareschi, Gabriele Vecchi, INAF - Osservatorio Astronomico di Brera (Italy); Giancarlo Parodi, BCV Progetti S.r.l. (Italy); Kiranmayee Kilaru, Jacqueline Davis, Ron Elsner, Doug A. Swartz, NASA Marshall Space Flight Ctr. (USA) [10699-36]

Session 9: *Lynx* from 1:30 PM TO 3:30 PM

Session Chair: Marco Feroci, INAF - Istituto di Astrofisica e Planetologia Spaziali - IAPS (Italy)

The high definition x-ray imager (HDXI) instrument on the *Lynx* x-ray surveyor

Abraham D. Falcone, The Pennsylvania State Univ. (USA); Ralph P. Kraft, Smithsonian Astrophysical Observatory (USA); Marshall W. Bautz, Massachusetts Institute of Technology (USA); Jessica A. Gaskin, John A. Mulqueen, Doug A. Swartz, NASA Marshall Space Flight Ctr. (USA) [10699-37]

The Design of the *Lynx* x-ray microcalorimeter (LXM)

Simon R. Bandler, Michael J. DiPirro, Megan E. Eckart, Kazuhiro Sakai, Stephen J. Smith, Wonsik Yoon, NASA Goddard Space Flight Ctr. (USA); Douglas A. Bennett, John A. B. Mates, Daniel S. Swetz, Joel N. Ullom, National Institute of Standards and Technology (USA); Kent D. Irwin, Stanford Univ. (USA); Dan McCammon, Univ. of Wisconsin-Madison (USA); Enectali Figueroa-Feliciano, Northwestern Univ. (USA); Kevin K. Ryu, MIT Lincoln Lab. (USA); Ben Zeiger, Luxel Corp. (USA); Jeffrey Olson, Lockheed Martin Space Systems Co. (USA) [10699-38]

An x-ray transmission grating spectrometer for *Lynx*

Hans Moritz Günther, Ralf K. Heilmann, Massachusetts Institute of Technology (USA) [10699-39]

The *Lynx* off-plane x-ray grating spectrograph

Randall L. McEntaffer, The Pennsylvania State Univ. (USA) [10699-40]

Considerations for the development of *Lynx*

Jonathan W. Arenberg, Northrop Grumman Aerospace Systems (USA); Lynn N. Allen, James Mooney, Harris Corp. (USA); Bill Purcell, Steven Jordan, Ball Aerospace (USA) [10699-41]

Toward fast, low-noise, low-power digital CCDs for *Lynx* and other highenergy astrophysics missions

Marshall W. Bautz, Andrew Malonis, Richard F. Foster, Beverly J. LaMarr, Gregory Y. Prigozhin, Catherine E. Grant, Eric D. Miller, Massachusetts Institute of Technology (USA) [10699-42]

Wednesday, June 13th Presentations:

Jitter analysis of *Lynx*: a proposed future large astrophysics facility

Joseph B. Knight, Jessica A. Gaskin, NASA Marshall Space Flight Ctr. (USA) [10699-178]

Options for the implementation of the *Lynx* mirror assembly

Jonathan W. Arenberg, Northrop Grumman Aerospace Systems (USA); Lynn N. Allen, James Mooney, Harris Corp. (USA) [10699-180]

Femtosecond laser micro-stressing of thin fused silica optics for the *Lynx* x-ray telescope mission

Heng E. Zuo, Brandon D. Chalifoux, Massachusetts Institute of Technology (USA); Ralf K. Heilmann, Mark L. Schattenburg, MIT Kavli Institute for Astrophysics and Space Research (USA) [10699-181]

Adjustable x-ray mirrors based on plastic electroactive polymer actuators for the *Lynx* mission

Manel Errando, Henric Krawczynski, Washington Univ. in St. Louis (USA) [10699-184]

Manufacturing of thermally formed glass substrates for *Lynx* adjustable optics prototypes

Vincenzo Cotroneo, Paul B. Reid, Eric D. Schwartz, Casey T. DeRoo, Daniel A. Schwartz, Harvard-Smithsonian Ctr. for Astrophysics (USA) [10699-185]

Compensating film stress in silicon substrates for the *Lynx* x-ray telescope mission concept using ion implantation

Youwei Yao, Heng E. Zuo, Ralf K. Heilmann, Mark L. Schattenburg, Massachusetts Institute of Technology (USA) [10699-186]

5-----

Chandra Science Workshop on Accretion in Stellar Systems

Date: August 8-10, 2018

Location: Cambridge, Massachusetts

Check out the main [website](#) and [meeting Information](#) pages!

About the workshop:

The workshop aims to bring together people working on accretion, outflows and related processes in diverse astrophysical objects, from protostars to cataclysmic variables to super-Eddington accretion in stellar mass black hole and neutron star binaries. The focus will be to understand how accretion and ejection work, how they affect stellar evolution, what important issues remain unanswered, and what are likely to be the most promising future research directions. The workshop will cover theory, simulations and observations, spanning the time domain, the entire electromagnetic spectrum, gravitational waves and energetic particles. A special session dedicated to the late Jeff McClintock's legacy to the field will also be held.

6-----

Special Section of JATIS

Lynx is organizing a special section of the Journal of Astronomical Telescopes, Instruments, and Systems (JATIS) to be published in the Spring of 2019. The focus of this special section is on the *Lynx* Observatory and includes, among other topics, payload elements (science instruments and optics), critical spacecraft components, and

engineering processes. Guest editors are Jessica Gaskin (MSFC), Douglas Swartz (USRA/MSFC), Alexey Vikhlinin (SAO), and Feryal Özel (Univ. of Arizona).

The call for papers has been posted on the JATIS [website](#) under “Upcoming Special Sections”:

<https://www.spiedigitallibrary.org/journals/journal-of-astronomical-telescopes-instruments-and-systems/call-for-papers>.

Please share this link with others in the community.

7-----

Calendar

You can view our public Google [calendar](#)! Additionally, Gmail users can add events directly from this calendar to their own.

View all of our [past events](#).

To subscribe or unsubscribe, to leave feedback, list events, or to ask questions, please e-mail lynxtelescope@gmail.com.