

# Lynx Newsletter

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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.**

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### 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](mailto:lynxtelescope@gmail.com).

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

*Weekly STDT Meetings*  
Wednesdays at 1:30 Central  
WebEx info can be found [here](#).

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### Educational Resources

Mark Schattenburg, Lynx's Optics Working Group lead, has created a [mirror physics primer](#). It explains how to:

- Develop a simple parametric model of telescope bandwidth, collecting area and resolution

- Use model to explore performance trade-offs vs. mirror design parameters

For more information about the science of x-ray astronomy, the [Chandra Field Guide](#) has an excellent introduction to the basics of x-ray astronomy and astrophysical sources of x-rays.

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### **Website Updates**

Our website's [home page](#) has an overview of Lynx and quick access to our latest news and events.

We have a new section for the [Science Themes](#) that drive the mission.

We are in the process of collecting papers and presentations from this summer's conferences. View some presentations from the [2017 HEAD meeting here](#). Watch for updates to [papers and presentations](#) from the From Chandra to Lynx Workshop and the SPIE Optics and Photonics Conference!

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### **Lynx Science Themes**

#### *The Dawn of Black Holes*

Lynx is the ultimate machine for black hole studies. Lynx will not only observe the birth of the first seed black holes at redshift up to 10 but also provide a census of the massive black hole population in the local and distant universe, follow their growth and assembly across cosmic time, and measure the impact of their energy input on all scales, from the interstellar through the circumgalactic to the intracluster and intergalactic medium.

#### *The Invisible Drivers of Galaxy Formation and Evolution*

The assembly, growth, and the state of visible matter in the cosmic structures is largely driven by violent processes that produce and disperse large amounts of hot gas and metals into the circumgalactic and intergalactic medium. The exquisite spectral and angular resolution of Lynx will make it a unique instrument for mapping the hot gas around galaxies and in the Cosmic Web.

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### **Lynx Represented at Summer Conferences**

#### SPIE Optics+Photonics 2017

The Lynx Team gave multiple talks and held a Technical Event geared towards discussing the Technology Roadmap.

[SPIE Optics+Photonics 2017 Website](#)

#### From Chandra to Lynx: Taking the Sharpest X-ray Vision Fainter and Farther

This conference was a workshop that sought to use Chandra's rich heritage to help develop the Lynx science and design goals.

[Chandra/Lynx Workshop Website](#)

#### 16<sup>th</sup> HEAD Meeting

Lynx was represented by several STDT members who either gave talks or chaired a session.

[16<sup>th</sup> HEAD Meeting Website](#)

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## **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](#).

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## **Programmatic Updates**

### *Technology Roadmap*

At this year's SPIE conference, Dr. Jessica Gaskin moderated an open forum/discussion regarding the optics and science instruments currently being considered for Lynx. Members of the Optics and Instrument Working Groups collaborated to start developing the Technology Roadmap for these technologies.

### *Concept Status*

For an overview of the Lynx mission concept status, see the [presentation](#) given at this year's SPIE meeting.

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