

Lynx X-ray Grating Spectrometer Group Objectives and Plans

Group Leaders: Ralf Heilmann and Randy McEntaffer

1. Work with the Science and Technology Definition Team (STDT) to establish baseline and goal requirements for a grating spectrometer for Lynx:
 - a) STDT to define the driving science requirements
 - b) IWG to define basic designs that meet (or approach) these requirements
2. XGS group to identify and describe basic trades (effective area vs. resolution, one vs multiple readouts, etc.).
3. Define TRL of all key components. Develop path to TRL5 before 2020 Decadal and comprehensive technology development plan to get to TRL6 by Lynx PDR.
4. Identify technology needs, gaps, and funding requirements to reach above milestones. Communicate to NASA's Physics of the Cosmos program office and NASA Strategic Astrophysics Technology program.
5. Identify readout technology and work with appropriate sensor experts to define the readout.
6. Develop ray-trace models that can support detailed trade studies.
7. Identify potential layout constraints due to other focal plane instruments.
8. Determine what level of engineering support is required to support XGS studies.
9. Participate in all NASA/MSFC Advanced Concepts Office costing/mission design exercises for Lynx.