Serendipitous NuSTAR stray light observations provide unique data sets for bright X-ray

sources

We found them so you don't have to and made the **tools** to analyze these observations

StrayCats: A catalog of NuSTAR Stray Light Observations

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Intro

- Stray light known since before launch because of open geometry
- For focused observations, try to avoid SL when predictable
- Realized SL could be used for calibration and science

By the Numbers

- > 2000 observations checked
- > 500 telescope fields ID'd
- > 80 Stray Light Sources
- 2 Papers, 5 SURF Projects (and counting)



• Extends the usable energy range above 78 keV while maintaining energy resolution and timing precision

Status

- StrayCats v1.0 released early 2021, base catalog through June 2020
- StrayCats v1.1 released early 2022, extends through June 2021 (>100 new observations, two new

Where are the StrayCats?



To the Future

- StrayCats v2.0 in progress
 - Extraction Regions
 - Lightcurves, HRs

Long-term Lightcurves





- Yearly updates
- Basic analysis tools now scienceready as part of nustar-gen-utils
- Background tool in progress

Is your favorite source a **Stray Cat?**

Come see.



StrayCats

