

January 22, 2019

The NuSTAR Users Committee (NUC) had a face-to-face meeting on January 8, 2019 in Seattle during the American Astronomical Society meeting. The following includes a list of attendees from the NUC, a list of ex-officio attendees, minutes of the meeting, and a summary of actionable items at the end.

**NUC attendees:**

John Tomsick (chair)  
Raffaella Margutti  
Stephanie LaMassa  
Anne Lohfink  
Marco Ajello

**Ex-Officio attendees:**

Karl Forster (SOC manager)  
Lisa Storrie-Lombardi (NuSTAR project manager)

**Meeting minutes:**

John started by giving an agenda for the meeting. First, any topics from the project side. Second, any new or outstanding topics from the NUC members. Third, discuss the 2019 Senior Review (SR19) proposal. The NUC received a draft a couple hours before the meeting.

Topic#1: Topics from the project side

- Karl led a discussion about AO-5. As a reminder, the AO includes an opportunity for Large Programs (recommended by the 2016 Senior Review committee as well as the NUC).
- There was some discussion about plans for dealing with increasing TOO pressure. This is a topic that the SR19 proposal addresses.
- Karl said that the project is considering having a NuSTAR science meeting in the relatively near future. The NUC was enthusiastic about such a meeting.

Topic#2: New or outstanding items from the NUC

- Marco was contacted by a member of the community about a case where a target proposed for joint XMM+NuSTAR time was not approved because it was in the NuSTAR legacy program. The NUC thinks that this should not happen unless there is too much overlap in the science justification for the observation. It seems likely that the NuSTAR policy should be better communicated to the XMM reviewers.
- Raf indicated that clarification is needed on the rules for TOOs related to gravitational wave detections. If a XMM+NuSTAR TOO and a NuSTAR AO-5 TOO are both triggered, which one will get precedence? Lisa indicated that this is something that should be clarified.

- John mentioned that he is aware that the Swift/XRT group has been working on some improvements to their calibration. The NUC would like to get an update on the Swift/NuSTAR cross-calibration (and perhaps other cross-calibrations) in the relatively near future.
- John mentioned that he has heard from some additional people who would be interested in using nuskybgd if there was an FTOOL or a python version.
- John has talked to a colleague at two recent meetings (COSPAR and AAS) about timing artifacts in NuSTAR power spectra. The colleague saw these artifacts for two very bright sources (MAXI J1820 and MAXI J1535), and hypothesizes that they may be caused by overlapping deadtime in FPMA and FPMB.
- Marco said that he has run into some issues with the procedure for doing stray light checks. Is there software available, or should someone writing an AO-5 proposal just e-mail the NuSTAR help desk?

### Topic#3: Senior Review 2019 proposal

- The NUC scrolled through the proposal draft and discussed the overall structure (e.g., the section on the PMOs from 2016 and the section on the new PMOs).
- We agreed to read over the draft and send comments to John by Monday, January 14. John will then combine the comments and pass them along to the project.
- There was a little discussion by the group as a whole (Ann, Marco, Raf...) about dealing with increasing TOO pressure. It was pointed out that if increasing the TOO response time is problematic, then it might make sense to allocate a very limited number of fast TOOs and a larger number of slower TOOs (as is done by Chandra).

### **Summary of Actionable Items:**

- For the next XMM review, make sure that policies about potential conflicts about Legacy targets are communicated
- The NUC would like to request clarification on precedence for TOOs related to gravitational wave detections
- For the next NUC meeting/telecon, updates on Swift/NuSTAR cross calibration and nuskybgd are requested
- The NUC will track the issues related to the timing artifacts and the stray light checks
- John collected comments on the Senior Review 2019 proposal draft from most of the NUC members and passed them on to Fiona/Daniel/Karl. If other NUC members would like to comment, please send comments to John soon.