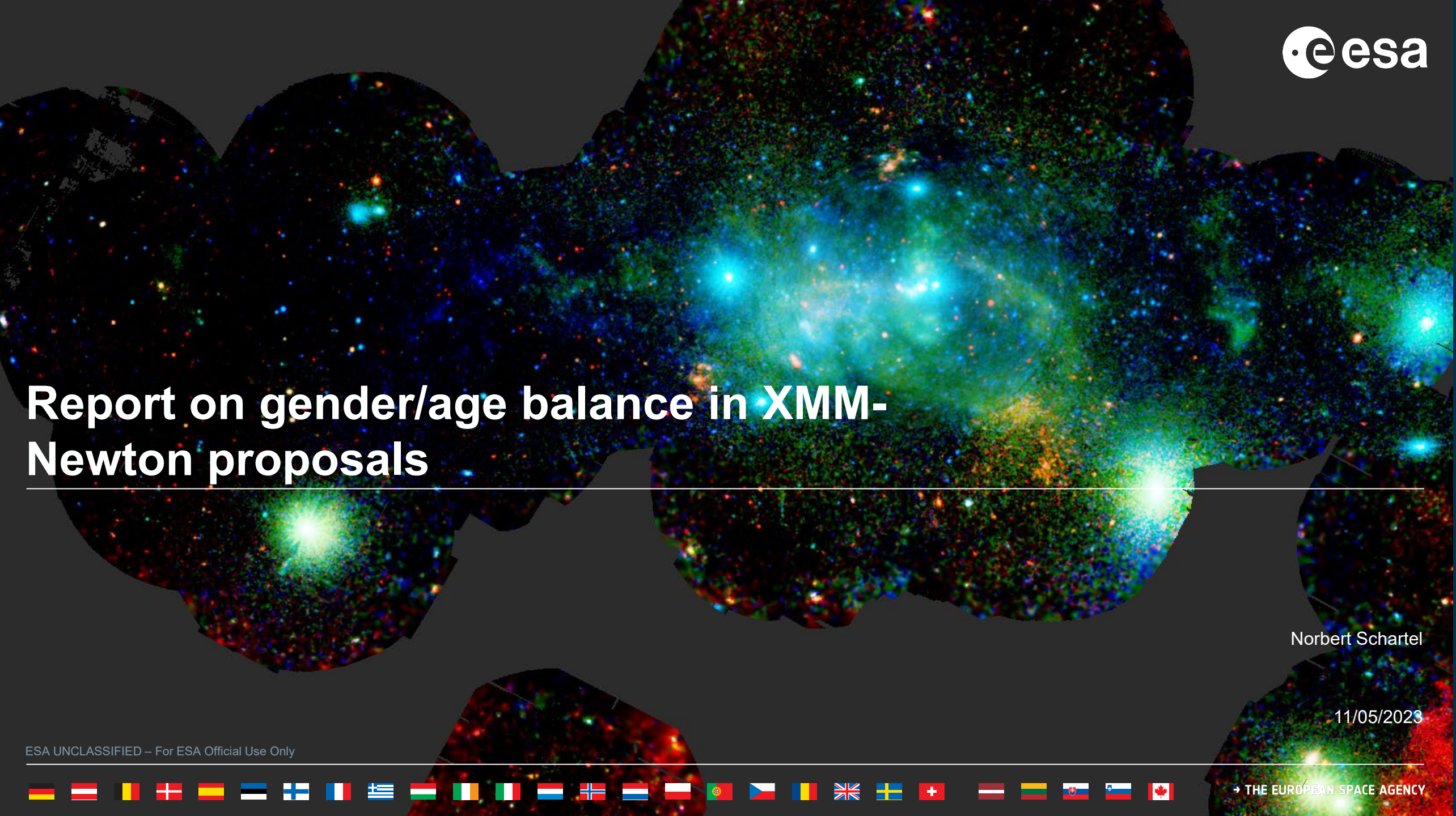

Report on gender/age balance in XMM-Newton proposals

Norbert Schartel

11/05/2023

Some Background:

- AO1 (1999) Classical set-up:
  - One panel per scientific category (7 scientific categories)
  - Between 5 and 9 panel members
  - All conflicts in the panel ("solved" by conflicted panel member leaves the room)
  - Special: Panel meetings on different dates (due to manpower constraints)
  - Special: Panel members from almost all member states of ESA (← D/SCI)
- → Review experience: brightest light and darkest shadows → change of set-up
- AO2 15 panels most with 3 panel members only → change of current set-up
- Later input from personal experiences
  - Chandra & NuSTAR
  - Chairpersons meeting (large program discussion)
  - ESO from comments
- → Adjustments of set-up

Lessons from AO1 / Set-up

- Lessons from AO1/AO2:
  - A panel should not evaluate proposals of members of the panel (most important of PI, CoI)
  - Panel members may be biased by the fact that a PI or CoI of the proposals is a member of any other panel
  - To ensure that a discussion focus on the science it is important that the panel members come from different communities and networks
  - Any ratings and decisions of a panel should not impact the evaluation of proposals submitted by panel members
- Set-up:
  - 2 or more panels per scientific category
  - Each panel consists of 5 panel members from different countries of home institutes
  - Each panel meets on different dates & places
  - The Panel members do not know the members of the other panels
  - Each panel has a defined and fixed budget of observing time which it allocates
  - Chairpersons are not allowed to be PI of large programs

XMM-Newton Observing Time Proposals

ESA Science Programme Missions: Contributions and Exploitation

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the date of receipt and acceptance should be inserted later

Publication in preparation
It will be open access

XMM-Newton Observing Time Proposals

A. N. Parmar[1], N. Schartel[2] and M. Santos-Lleó[3]

Introduction

XMM-Newton was launched on 10 December 1999 into a 48-hour highly elliptical orbit. The mission provides sensitive X-ray imaging and spectroscopic observations of a wide variety of cosmic sources from nearby

As the book is not published yet, the following graphs and tables can not be shown publicly.

For the full talk, please, contact the XMM-Newton Project Scientist, Norbert Schartel .

Summary

Taking all XMM-Newton proposals, all AOs and all observing priorities (A, B and C)

- Per construction no bias versus panel members or topics
- The relative success rate changes from AO to AO, i.e. there are AO where females are more successful and others where men are more successful
- A possible small (1.7-sigma) tendensy in favor of men proposer
- The tendency equals exactly the tensity in favor of men obtained after introduction of the double-anonymous system (data of 4 cycles)
- The acceptance rate increases from ~34% (before PhD) to ~47% (34 years after PhD)
- The acceptance rate of ~34% (before PhD) compares well with the acceptance rate for first time proposers (30%) obtained after introduction of the double-anonymous system (data of 4 cycles)
- The relative success rate of senior females (PhD > 20 year), is ~1-sigma below the relative success rate of me
- This potential bias is very small compared to the bias observed after introduction of the double-anonymous system

Possible Explanation

- Possible Explanation:
- The OTAC as set up for the XMM-Newton reviews, show a high social competence and sensitive
- OTAC members work hard to make fairest decisions
- OTAC members are taking unconscious biases and secondary, gender and age dependent, effects (language, presentation style, overstating ...) into account and “compensated” for them within the judgement fertilized by the openness of the process and discussion