

SKA SWG Chairs Meeting – 15 October 2024

Minutes/Notes

Attending: Harrison, Radcliffe, Hessels, Mulrey, Audard, Spinelli, Gupta, Bellomo, Cole, Zucca, Sharma, Joshi, Callingham, Hale, Tabatabaei, Camilo, Casasola, Buitink, Liu, Adams, Bianchi

SKAO: Braun, Bonaldi, Bourke, Williams, Balt

Apologies: West, van Loon

Update on Construction. Refer to the slides for details.

SKA-Low

AA0.5 is progressing very well (4 stations). All antennas deployed, not all tested.

Some AA1 stations are deployed (e.g. at S8 building out on AA0.5).

Major change to roll-out of stations to be discussed next month, currently being formalised.

Will improve AA2 science performance. More remote stations will be available earlier, less available in the core, more uniform distribution and longer baselines than was planned.

SKA-Mid

3 dishes on site, 3 more on their way.

CBF and maser for AA0.5 will be delivered late this year/early this year.

Software Update

Read the slide

For AA0.5, good progress or completed. Should be available when the arrays are ready - no issue foreseen.

For AA2 (Science Verification Array) some hardware limitations will exist (cost), and still working on prioritisation on what functionality should be delivered.

Q (Rohit) what is the level of the noise diode for flux calibration on Mid, and is it sufficient for Solar calibration?

SDC 3b - Inference (EoR signal)

Released today!

Data is cleaned of Foregrounds. Data set is a 2D power spectrum and imaging cube.

There are a number of variations on the 2D power spectrum.

Two provided now, from two different sets of astrophysics parameters and simulators, with noise

For comparison to simulations by the community.

Seeking to assess the level of agreement with the mock data set.

Third to be provided. EoR + noise + residual foreground contamination

The scoring is less important than bring the teams together in the community

See the slides for more details, and stay tuned for the results.

Science Book Update:

Chapter ideas submitted through Oxford Abstracts and to the SWGs directly.

Each SWG now has access to the list of chapters in their area

Now onto Phase 2. SWG Chairs to collate the chapters in their areas, deal with overlaps between chapters and SWGs, identify gaps.

Chairs - please check with the other SWGs when more than one SWG is identified in the Oxford Abstracts, and decide which SWG is the priority.

Then chairs will invite authors to prepare draft chapters. DEADLINE for advanced draft is Feb. 28, 2025

Questions/Issues/Comments from the Chairs, and *updates/guidelines from SKAO*:

- How best to deal with cross-SWG duplication? Which group to put chapters into in this case? *SKAO: Chairs should discuss among themselves. If unsure talk to the SOC chair*
- Multiple submissions for essentially the same science. How to merge? Some groups are identifying science sub-themes, and putting chapter ideas into sub-themes within a group. *SKAO: Encourage authors to merge almost identical chapters, otherwise contact SOC chair*
- *No limit on the number of chapters, but too many chapters means a lot of chapter tracking.*
- Can we be consistent on how author lists are presented. Suggestion is SWG-groupName then alphabetic, or leave it up to the SWGs. How best to call-out contributions by early-career researchers. Can SKAO recommend something? *SKAO response - we don't want to be overly prescriptive, so we can provide guidelines but won't enforce anything.* Others prefer to leave it to the chapter leaders to sort this out, with some oversight from the SWG chairs.
- Marta (Cosmology). Leaving the chapter leaders to sort this out is our preferred approach
- Will we refuse any chapters? *RB: there does need to be a minimum standard. If in doubt talk with your SWG SKA Liaison and we can make a joint decision.*
- What about chapters that are more technical or not obviously science-theme focused (ML is an example). *SKAO: Chairs to identify and we can decide their place in the book later, but we certainly want to encourage these types of chapters. It may be we have a Techniques or similarly titled section. We did this for the 2015 books (Synergies and other science)*
- *We are now going with only one suggestion for chapter length - 15 pages max is recommended*
- Synergy chapters? *SKAO: if such chapters don't fall naturally into a science area, flag them and we can decide where they best fit.*

No time was available to discuss the other topic - SWG Survey outcomes.

Will be presented at next meeting.

Please see the slides and ask questions if you have any - science@skao.int