

SKA SWG Update 17 January 2023

SWG Chairs: Françoise Combes, Mark Sargent, Patrick Woudt, Sébastien Müller, Tessa Vernstrom, Divya Oberoi, Eduard Kontar, Aris Karastergiou, Anna Nelles, Abhirup Datta, Phil Edwards

SKAO Science Team: Robert Braun, Philippa Hartley (notes), Wendy Williams, Simon Purser, Tyler Bourke

Apologies: John Ilee, Cherry Ng, Betsey Adams, Andrei Mesinger, Marta Spinelli, Stefano Camera, Barbara Catinella

SDC2 update - Philippa:

Paper under review at MNRAS; currently addressing helpful comments received from the reviewer.

Reproducibility awards:

Reproducibility awards were granted to SDC2 teams for recognition of reproducible and reusable software pipelines. We are continuing to promote reproducibility in SDC3, again in partnership with the Software Sustainability Institute, but in SDC3 we will be using a simpler and streamlined set of criteria.

SDC3 - Simon:

SDC3 update: Running two parts to science data challenge 3: a foreground removal exercise and an inference exercise. The foregrounds task will involve the estimation of the 21cm power spectrum. Datasets will be provided in both image and visibility formats.

Registrations have closed. 28 registrations from 14 countries (team leaders). Teams were asked as part of registration to state their data format preference and whether they would require resources from our HPC facility partners. We are now working with 13 international HPC facilities who are providing very generous support to SDC3.

We are currently in the process of pairing teams with HPC facilities.

Data transfer process for SDC3a - Philippa:

We need to transfer 7.5 TB of challenge data to 13 international data centres. We are mainly using rsync for this as it is simple and stable, but we are also looking at methods that speed up the process. Bbcp can be used to parallelise the transfer process, and the rsync command can itself be run in concurrent instances. We are also working with SKA Regional Centre prototyping teams who are investigating the ‘Rucio’ software framework to share and store large volume of data.

Science Meetings

Thank you for all the suggestions, which we have now added to the slides (please see slide)

MeerKAT Extension Science workshop

Coordinated surveys of the southern sky

PHISCC "HI surveys in full swing"

Joint SKAO/VLA conference (science focused)

European solar radio workshop in July

EAS 2023, including SKAO lunch session on the Friday. Will include half an hour of science talks (Wendy W is organising).

Aris K: "Timing and Imaging of Compact Sources" in Greece in June. 12th 18th

Coordinated Surveys of the Southern Sky (SKA+ESO) meeting:

Focus on collaboration. Registration open.

SKA/ngVLA meeting - Tyler:

Abstract deadline in a few weeks (Feb 10). Registration opens imminently.

Important to note that wait times for visas with some embassies may be quite long.

We have a deal with the hotel with a cut-off of 7th April – please stay at the hotel if you can.

Monday - Wednesday mostly focussed on Science. Thursday and Friday will include some non-science aspects including Operations.

AOB:

Updates from chairs

Mark Sargent:

Half yearly 2 hour online workshop with HI SWG, next one in March and currently calling for abstracts. Addressing commensality. Talks plus open discussion. Also looking to do the same with cosmology.

Anna N:

Cosmic ray science: getting very much into the technical details at the moment. Looking at testing at one of the aperture array verification stations. New idea to use the beam-formed capability of SKA to look for PeV gamma rays.

Tessa:

SPARCS meeting held in South Africa at the end of last year. Hybrid event; went very well and included updates from all the pathfinder surveys. Also were able to support students' travel. Task force has been set up to talk about large surveys and calibration strategies. Looking at a polarisation working group too.

Robert:

If you are missing technical details please do get in touch and we will be very happy to help. Please also let us know your suggestions for future SWG chairs meetings.