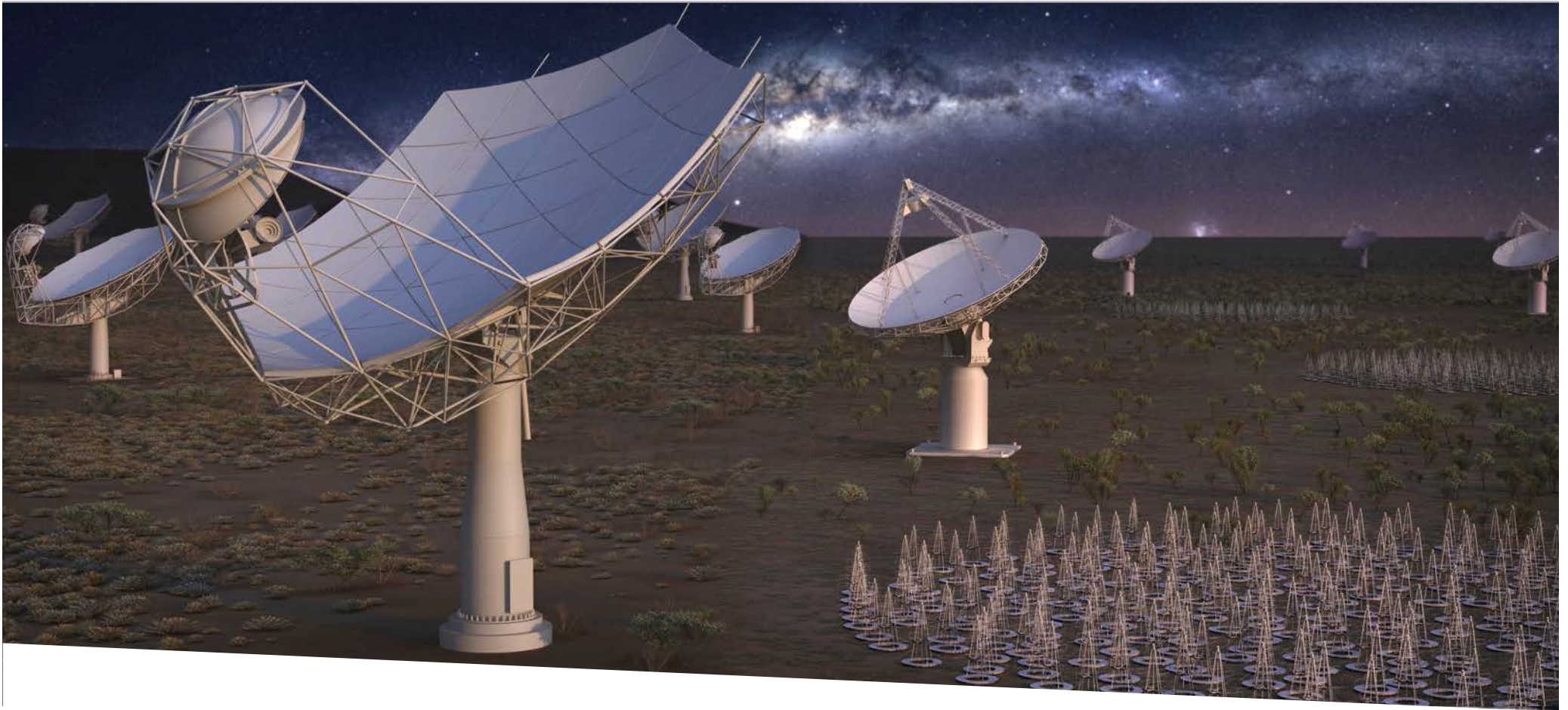


SKA SWG Update



SQUARE KILOMETRE ARRAY

Exploring the Universe with the world's largest radio telescope

Robert Braun, Science Director

19 May 2020

Science Activity Updates

- SRC Steering Committee Update (Rosie, Andrea)
- Construction Proposal
 - First draft progressing well
 - SWG review of science sections pending
- SKA related meetings (Anna)
 - SKA Science Meeting
- Round table SWG updates (All)
- AOB

SWG CHAIR UPDATE
19 MAY 2019

The WG6 (Science User Engagement) of the Ska Regional Centre Steering Committee (SRCSC)

ANDREA POSSENTI
HANS-RAINER KLÖCKNER
(CO – CHAIRS WG6)

The WG6 (Science User Engagement)

Long-term scopes

The final aims of this long-living WG are

- i. to engage the science community in tuning the requirements for the SRC network in order to maximize the science return
- ii. to guide the scientific community at large towards the new end-to-end procedures that the SKA era will require for performing a scientific program.

Main Task Packages

TP₁ = to collect feedback from the reference Science User communities – SKA programme users and SKA science archive users – to help identifying a complete set of requirements for, and the implied scale of, the SRC network and eventually optimize the final list emerging from the exercise above, by e.g. recognizing commonalities.

TP₂ = to support, stimulate and coordinate a constant interaction among the software developers and the Science User communities to test the progressive implementation of the needed solutions in the SRC network. In particular, to identify cases-of-study based on real and/or simulated data in order to achieve the delivering of some science results since the early stage of a proto-SRC network;

TP₃ = to coordinate the set up of the “SRC capability challenges” (not the same as the more usual notion of "data challenges"), and to accompany the community in the change of mentality required by the implementation of the SKA1 data extraction workflow.

Management

Executive Team : *expected to meet at least once every two weeks with the presence of the 2 co-chairs and of the task coordinator and deputy for each of the 3 Task Packages.*

Consultation Team : the members of this Team are expected to be involved only in specific themes and to attend only a fraction of all the meetings planned for the WG6. However, their role is essential and they *will be assigned tasks and precise deadlines by the Executive Team*, which are due to be maintained.

Recruiting

The back-bone of the Consultation Team for TP1 will be composed by the Data Management and Exploitation representatives of the SWGs already indicated by the majority of the SWGs back in 2019. Some representatives from other electromagnetic bands and GW/neutrino science will be also needed and recruited.

Science Working Group	Data Management and Exploitation representatives
Cosmology	Laura Wolz & Richard Battye
Cradle of Life	Kazi Rygl
Extragalactic Continuum	Keith Grainge & Mamta Pommier
Extragalactic Spectral line	Viviana Casasola + ??
HI galaxy science	Baerbel Koribalski, Ivy Wong & Gyula Józsa
High Energy Cosmic Particles	Clancy James & Anna Nelles
Our Galaxy	Adriano Ingallinera, Danielle Fenech & Wouter Vlemmings
Pulsars	Lina Levin
VLBI	Cristina Garcia-Miro, Huib Jan van Langevelde + Zsolt Paragi
Epoch of Reionization	
Gravitational Waves	
Magnetism	
Solar, Heliosph/Ionosph Physics	
Transients	
...	

Tentative timeline

now = completing the engagement of the SWGs and starting the engagement of people of the non-radio and of other (e.g. GW & neutrino) communities

+ 1/2 months = First meetings of the TP₁

+ 4/6 months = Distribution of a questionnaire to the SWGs in order to collect use cases to be run at the SRCs. That will include a preamble with a description of what kind of data will be delivered by the SDP and will ask about the needed functions at the SRCs, also estimating the size of storage and computation. A template for the answers will be also included.

+ 1 year = End of the collection from the SWGs of the requirements for the SRCs and of preliminary models for their scaling

+ 2 years = Optimization of the list of the requirements for the SRCs (including discussion of the commonalities) and refinement of the model for the implied scale. Release of a complete living Level 1 document, describing the outcome of this task package at the time of its release (of course this document will have to be regularly revised and updated)

Next SKA Science Meeting

- SKA Science Meeting, March 2021
 - Balance of physical versus virtual presence under study
 - Learning from EAS and AAS precedents
 - Degree of virtual nature will strongly influence venue choice
 - Based on SOC discussion have decided to go fully virtual!
 - Title: “The Precursor View of the SKA Sky”
 - Preferred schedule: 5 mornings of plenary, 5 afternoons of parallels
 - Parallel sessions based on multiple-SWG science topics, total number to be confirmed

Next SKA Science Meeting

- Updates by SWG
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