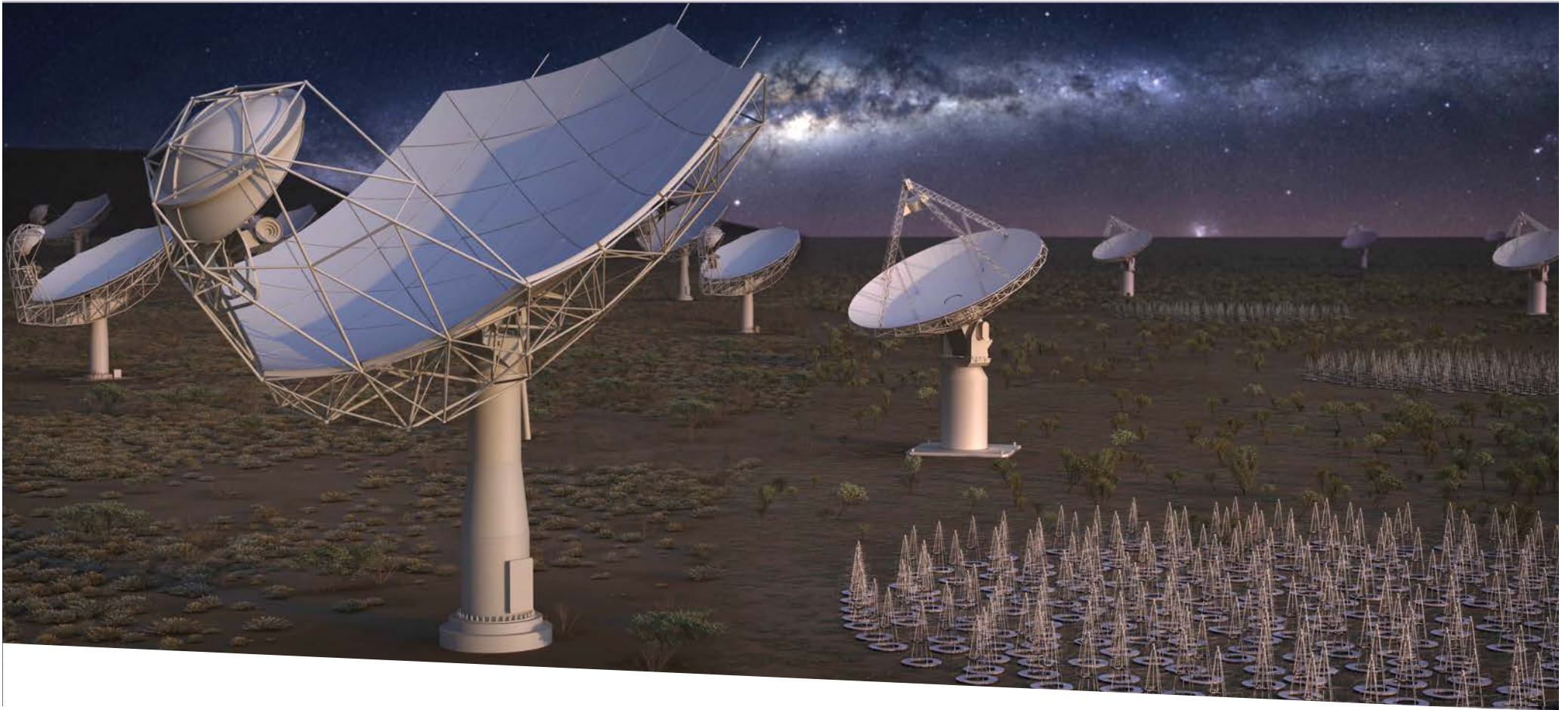


SKA SWG Update



SQUARE KILOMETRE ARRAY

Exploring the Universe with the world's largest radio telescope

Robert Braun, Science Director

20 Oct 2020

Science Activity Updates

- Next Science Meeting (Anna)
- Next Science Data Challenge (SDC2) (Anna, Philippa)
- Round table (All)
- AOB

Next SKA Science Meeting

- SKA Science Meeting, March 15 – 19, 2021
 - Fully virtual conference
 - Learnings from many precedents over past months
 - Title: “The Precursor View of the SKA Sky”
 - Both Live and Pre-recorded (but with Live Q&A) sessions being planned to maximise time-zone coverage and accessibility
 - Up to five parallel sessions
 - Platform choice imminent, to be followed by opening of registration

Next SKA Science Data Challenge (SDC2)

- SDC2 progress:
 - Implementation of SWG feed-back on prototype cube
 - Large scale structure and environmental sensitivity (of HI content and continuum morphology) now implemented in virtual sky
 - Frequency sampling improved 4x to 6 km/s (but balanced with some reduction of spatial resolution and red-shift range to retain 1 TB cube size)
 - HI absorption signatures now included
 - Continuum subtraction degraded (was 10^{-4} now 10^{-3} RMS)
 - Use of MeerKAT total power spectrum to modulate simulated RFI levels with frequency, both as noise floor and with baseline dependent “flagging”
 - Good progress on standardisation and containerisation of simulation code
 - Good progress on scoring code migration: SDC1 to SDC2
 - More than 40 teams have Registered Interest in participation
 - Support from at least five HPC centres to host data and provide user access/processing
 - Still aim to begin challenge in December/January

Science Working Group Updates

- Round table (All)
- AOB

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